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ORIGINAL ARTICLES.

THE MIND CURE; OR THE MENTAL METHOD OF HEALING.

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SECOND ARTICLE.

FAITH is the salvator of human happiness, but unreasoning credulity is the tomb of the intellect. The man who of his own free will for the first time applies to a disciple of the mental method to be treated for some ailment, and tells the "healer" he has no faith in the system, neither means nor appreciates the fact that such a statement is untrue. He at least has a little credulity, or he would not make the trial. I suppose we may set it down as a universal fact, that a man will deny his belief in that which he is wholly or half ashamed to acknowledge, until some indefinite period *after* his conversion. In fact he will often at first deny his change of views even to his own consciousness. Necessarily he takes this attitude from his first actual contact with the novelty—if not before—and his grain of faith begins to grow, really before he himself is aware of it; therefore this new insidious faith has a powerful, though unrecognized, influence upon the man, and though voluntarily rejecting, he involuntarily accepts whatever tends to strengthen this faith, and before he is aware of it he is helplessly impotent to resist the strength of his fully developed belief. (Of course, then, he no longer denies his faith). Such a psychic state exists only for the man who trusts entirely to the evidence of his senses unsupported by the higher tribunal of sense, judgment.

Recognizing the fact that mental impressions exercise untold influence upon not only the nervous system, but upon the organs and tissues depending upon the nervous system for vitality, we clearly see that those who practice the mental method of healing must meet with a fair amount of success in the treatment of disease. Undoubtedly *bona fidé* cures of disease have resulted from the application of this system, but so have all other faith exciting methods cured disease, or, produced whatever result was expected. The literature of the past, as well as of the present, furnishes excellent examples of this, as witness, "The Royal Gift of Healing," Sir Kenelm Digby's "Powder of Sympathy," the various charms for the cure of ague, warts, etc. All these things have wrought just as wonderful results as has the mental method. In illustration, I will compare a few cases of cures made by the mental method, with some of the cures made by other supposed objective methods.

The cases treated by the mental method were kindly furnished me by a gentleman, a physician, who has lately practically investigated the method from a popular point of view, *i.e.*, by purposely depending upon the evidence of the senses, instead of discarding this method and entirely trusting to the judgment. He treated 45 cases, with 11 cures, 14 partial cures, and 20 complete failures.

Case No. 1.—Young lady. Intermittent Fever, occurring every alternate day (tertian type). The three stages well marked, *i.e.*, chill, fever, sweat. A typical case. Three treatments were given; there was no paroxysm after the first treatment.

Case No. 2.—Young woman with acute inflammation of the peritoneum. No pain after first treatment, and a rapid subsidence of the inflammation.

Case No. 3.—Colored preacher: Varicocele. After several treatments discomfort all removed, suspensory bandage thrown aside, but the swelling *not all gone; the tumor still remains in part.*

Case No. 4.—Little girl about ten years old. Paralysis of the lower extremities. After several weeks of almost daily repeated treatments the child has regained nearly complete use of limbs. Probable cause of disturbance, congestion of spinal cord.

Case No. 5.—Married woman. Fleshy tumor in breast cured after a number of treatments, though another which formed after the disappearance of the first one failed to yield to treatment.

Case No. 6.—Young lady. Sprained knee. Several treatments relieved.

Case No. 7.—Colored woman. Intermittent fever. Appeared at irregular times. After weeks of other treatment, recovery followed application of the M.M.

Cases Nos. 8, 9, 10 *and* 11.—Mumps. Pain

promptly relieved, followed by disappearance of tumor in less than usual time.

Out of the forty-five cases treated, these, then, are those that gave the best results, although you will observe that several of them are questionable cures.

Jeremy Collier in his "Ecclesiastical History of Great Britain," says of King Edward of England, commonly known as the Confessor: "That this prince cured the king's evil is beyond dispute."

This was the first of England's kings who exercised what was supposed to be a gift of healing, and for a period of seven hundred years, until the reign of Queen Anne, this practice was continued with now and then a sovereign who doubted the efficacy of the practice. The Pretenders also attempted to assume the power of healing; but of all the rulers of England no one practiced the "touch" to such an extent as did King Charles II. He is said to have made some remarkable cures, which are well authenticated, and demand acceptance upon a plane with the mental method cures. "Serjeant-Surgeon Wiseman, one of the best English writers upon surgery, bears testimony to the efficacy of the king's touch, and devotes an entire book to the subject." He says: "I myself have been a frequent eye-witness of many hundreds of cures performed by his majestie's touch alone, without any assistance of chirurgery; and those, many of them, such as had tired out the endeavors of able chirurgeons before they came thither."

Sir Thomas Browne was another physician of some eminence in that day. He was a "somewhat eccentric, but able man," and was knighted by Charles II. He wrote a work entitled "Pseudodoxia Epidemica," in which he exposes many of the vulgar errors of his time, but in it he makes no mention of the king's touch; on the contrary, his private letters give proof of his belief in the practice. He is said to have "recommended the child of a nonconformist in Norfolk, who had been long under his care without receiving benefit, to be taken to the king, then at Breda or Bruges. Little faith, however, being held by the father of the child as to the efficacy of such intervention, he scorned the advice, and the child was therefore, under the pretence of a change of air, taken without the privity of the father abroad to the king, where it was submitted to the royal touch and returned perfectly healed. Astonished at the change affected in his child's appearance, the father inquired as to the means that had been employed, and being made acquainted with them, he not only acquired faith as to the power of the royal touch, but also cast off his nonconformity."

Pettigrew in his "Medical Superstition" mentions another interesting example: "The king was also beset in his walks by the importunities of the diseased. A most disagreeable case of this kind is reported, upon the authority of the celebrated Elias Ashmole, of a man called Arrice Evans, generally known by the name of Evans, the Prophet, whose condition was so bad that no one could be found willing to recommend him to the soverign's assistance. He therefore placed himself in St. James' Park, where he knew the king would walk, and upon his majesty's approach called out and attracted the king's notice. Falling down upon his knees, he loudly exclaimed 'God bless your majesty!' which occasioned the king to give him his hand to kiss, when Evans availed himself of the opportunity to apply it to his dreadfully ulcerated nose, which from that time improved and ultimately recovered."

A far greater number of people believed in the king's touch than have been convinced of the virtue of the Mental Method. John Evelyn in his "Diary," under date of March 28th, 1684, says: "There was so great a concourse of the people with their children to be touched for the Evil, that six or seven were crushed to death by pressing at the Chirurgeon's door for tickets."

Pettigrew, in the work above quoted, writes: "The number of cases after the restoration appears to have greatly increased, as many as six hundred at a time being touched, and the days appointed being sometimes thrice a week. Some were immediately relieved, others gradually so, and a few are reported as not being benefited by the practice."

King Charles' surgeon says of the custom: "When I consider his majestie's gracious touch, I find myself readily *nonplust*, and shall ever affirm, that all chirurgeons whatever must truckle to the same, and come short of his marvellous and miraculous method of healing; and for further manifestations hereof, I do humbly presume to assert, that more souls have been healed by his majestie's sacred hand in one year, than have ever been cured by all the chirurgeons of his three kingdoms ever since his happy restoration."

Like the mental method "healers," Charles II. resorted to a form, a certain ritual peculiar to the occasion. But unlike the "treatment" of the "healers," it was not kept secret. This is described by Evelyn in his "Diary" for July 6th, 1660, viz.:—"His Majesty began first to *touch for the evil*, according to custom, thus: his Majesty sitting under his State in the Banquetting House, the Chirurgeons cause the sick to be brought or led up to the throne, where they kneeling, the king

strokes their faces or cheekes with both his hands at once, at which instant a Chaplaine in his formalities says, 'He put his hands upon them and he healed them.' This is said to every one in particular. When they have all been touched they come up again in the same order, and the Chaplaine kneeling, and having angel gold strung on white ribbon on his arme, delivers them one by one to his Majestie, who puts them about the necks of the touched as they passe, while the first Chaplaine repeats: 'That this is the true light which came into the world.' Then follows an epistle (as at first a Gospell) with the Liturgy, prayers for the sick, with some alteration, lastly the blessing; and the Lo Chamberlaine and Comptroller of the household bring a basin, ewer and towell, for his Majestie to wash."

Students of English history may remember that Charles II. was not noted for a high grade of morality, consequently these cures cannot be due to his virtue. It is now generally supposed they were due to the immagination of the patient. But a Dr. Heylin who lived at this time, says, he has "seen some children brought before the king by the hanging sleeves, some hanging at their mothers' breasts, and others in the arms of their nurses, all touched and cured, without the help of a serviceable immagination."

In the "Book of Days" is found the following:—"Carte, the historian, appears to have been not only a believer in the efficacy of the royal touch, but in its transmission in the hereditary royal line; and to prove that the virtue of the touch was not owing to the consecrated oil used at the coronation, as some thought, he relates an instance within his own knowledge of a person who had been cured by the Pretender. 'A young man named Lovel, who resided at Bristol, was afflicted with scrofulous tumors on his neck and breast, and having received no benefit from the remedies applied, resolved to go to the Continent and be touched. He reached Paris at the end of August, 1716, and went thence to the place where he was touched by the lineal descendant of a race of kings who had not at that time been annointed. He touched the man, and invested him with a narrow ribbon to which a small piece of silver was pendant, according to the office appointed by the church for that solemnity. The humors dispersed insensibly, the sores healed up, and he recovered strength daily till he arrived in perfect health at Bristol at the beginning of January following. There I saw him without any remains of his complaint.'"

Another case is one in which Sir Humphrey Davy was concerned: "As soon as the powers of nitrous oxide were discovered, Dr. Beddoes at once concluded that it must necessarily be a specific for paralysis; a patient was selected for the trial, and the management of it was intrusted to Sir Humphrey Davy. Previous to the administration of the gas, he inserted a small pocket thermometer under the tongue of the patient, as he was accustomed to do upon such occasions, to ascertain the degree of animal temperature, with a view to future comparisons. The paralytic man, wholly ignorant of the nature of the process to which he was to submit, but deeply impressed, from the representation of Dr. Beddoes, with the certainty of its success, no sooner felt the thermometer under his tongue than he concluded the *talisman* was in full operation, and in a burst of enthusiasm declared that he already experienced the effect of its benign influence throughout his whole body; the opportunity was too tempting to be lost; Davy cast an intelligent glance at Coleridge, and desired his patient to renew his visit on the following day, when the same ceremony was performed, and repeated every succeeding day for a fortnight, the patient gradually improving during that period, when he was dismissed as cured, no other application having been used."

I think this is about as remarkable as any case reported by the mental method people. This can be balanced against the case of spinal congestion reported a few pages back as having recovered under the M. M. treatment. The following we will pit against the similarly reported cases of intermittent fever. The narrative relates to Sir John Holt, "Lord Chief Justice of the Court of the King's Bench, 1709." "It is said he was extremely wild in his youth, and being once engaged with some of his rakish friends in a trip into the country, in which they had spent all their money, it was agreed that they should try their fortune separately. Holt arrived at an inn at the end of a straggling village, ordered his horse to be taken care of, bespoke a supper and a bed. He then strolled into the kitchen, where he observed a little girl of thirteen shivering with an ague. Upon making inquiry respecting her, the landlady told him she was her only child, and had been ill nearly a year, notwithstanding all the assistance she could procure for her from physic. He gravely shook his head at the doctors, bade her be under no further concern, for that her daughter should never have another fit. He then wrote a few unintelligible words in a court hand on a scrap of parchment, which had been the direction affixed to a hamper, and rolling it up, directed that it should be bound upon the girl's

wrist, and there allowed to remain until she was well. The ague returned no more; and Holt, having remained in the house a week, called for his bill. 'God bless you, sir,' said the old woman, 'you're nothing in my debt, I'm sure. I wish, on the contrary, that I was able to pay you for the cure you have made of my daughter. Oh, if I had had the happiness to see you ten months ago, it would have saved me forty pounds.' With pretended reluctance he accepted his accommodation as a recompense and rode away. Many years elapsed, Holt advanced in his profession of the law, and went a circuit, as one of the judges of the Court of King's Bench, into the same county, where, among other criminals brought before him was an old woman under a charge of witchcraft. To support this accusation, several witnesses swore that the prisoner had a spell with which she could either cure such cattle as were sick or destroy those that were well, and that in the use of this spell she had been lately detected, and that it was now ready to be produced in court. Upon this statement, the judge desired it might be handed up to him. It was a dirty ball, wrapped round with several rags, and bound with packthread. These coverings he carefully removed, and beneath them found a piece of parchment, which he immediately recognized as his own youthful fabrication. For a few moments he remained silent—at length, recollecting himself, he addressed the jury to the following effect: 'Gentlemen, I must now relate a particular of my life, which very ill suits my present character and the station in which I sit; but to conceal it would be to aggravate the folly for which I ought to atone, to endanger innocence, and to countenance superstition. This bauble, which you suppose to have the power of life and death, is a senseless scroll which I wrote with my own hand and gave to this woman, whom for no other reason you accuse as a witch.' He then related the particulars of the transaction, with such an effect upon the minds of the people that this old landlady was the last person tried for witchcraft in that country."

In the "Discourse in a Solemn Assembly at Montpellier," on the "Sympathetic Powder," "made in French by Sir Kenelm Digby, Knight, 1657," and published in English, in London, in 1679, is an interesting account of the case of Mr. James Howel, "well known in France for his publick works, and particularly for his Dendrologia," who was wounded in attempting to separate "two of his best friends" who were fighting a duel. Mr. Howel was very seriously wounded in his hand. Sir Kenelm says: "It was my chance to be lodged hard by him, and four or five days after, as I was making myself ready, he came to my House, and prayed me to view his wounds; 'for I understand,' said he, 'that you have extraordinary remedies upon such occasions; and my Chyrurgeons apprehend some fear that it may grow to a Gangrene, and so the hand must be cut off.' In effect, his countenance discovered that he was in much pain. I asked him then, for any thing that had the blood upon it; so he presently sent for his Garter, wherewith his hand was first bound; and as I call'd for a Bason of water, as if I would wash my hands; I took a handful of powder of Vitriol, which I had in my study, and presently dissolved it. As soon as the bloody Garter was brought me, I put it in the Bason, observing the while what Mr. Howel did; who stood talking with a gentleman in a corner of my Chamber, not regarding at all what I was doing. But he started suddenly, as if he had found some strange alteration in himself. I ask'd him what he ail'd? 'I know not what ails me,' said he, 'but I find, that I feel no pain: methinks a pleasing kind of freshness, as it were a wet cold napkin spread itself over my hand; which hath taken away the inflammation that tormented me before'; I reply'd, 'Since then you feel already so good an effect of my medicament, I advise you to cast away all your plaisters; only keep the wound clean, and in a moderate temper 'twixt heat and cold. After dinner I took the Garter out of the water and put it to dry before a grate fire. It was scarce dry, but Mr. Howel's servant came running, to tell me that his Master felt as much burning as ever he had done, if not more; for the heat was such, as if his hand were betwixt coals of fire. I answered that although that had happened at present, yet he should find ease in a short time; for I knew the reason of this new accident, and I would provide accordingly so that his Master should be free from that inflammation, it may be, before he could possibly return unto him; but in case he found no ease, I wished him to come presently back again; if not, he might forbear coming. Away he went; and at the instant I put again the Garter into the water; thereupon he found his Master without any pain at all. To be brief, there was no sense of pain afterward; but, within five or six days the wounds were cicatriced, and entirely healed."

Certainly, this is a notable case, and not less remarkable than any I have yet heard reported by the "healers" of the mental method school. These "healers" may explain, to their own satisfaction, certain distinctions between the cause of these cures, over which we have spent so much

time, and those made by applying their own method, but the only alternative left science is to classify them all together.

I will give one more case, of particular interest to myself because it occurred in my own experience, and which most sharply defines the place of the mental method, and then I have done with details.

The patient, an uneducated negro woman about thirty-six years old, was suffering acutely from a painful ulcer on the left leg, about six inches above the ankle, accompanied by acute inflammation of a large vein extending up the thigh. Her physician, a believer in the mental method, after failing to relieve the pain with drugs, treated her according to the method, and effectually relieved the pain for five or six hours after the treatment. A few days later I saw the patient, and understanding from her narration what had occurred, upon her wish to have the operation repeated, I told her that although I could not apply the same "treatment," yet I believed I could relieve her pain by a somewhat similar process. So, requesting her to remain quiet, I closed my eyes, and simply remained motionless for several minutes, when upon inquiry she confessed herself free from pain, except a drawing under the knee; this also was promptly removed within the next few moments after similar treatment. On interrogation next day, I found the pain had not returned for five or six hours following the significant silence.

The practical results of the Mental Method of Healing is no argument for this mode of treating patients, any more than it is an argument for the "king's touch," or the application of any other of the methods belonging to this class of superstitions. Such *results* prove nothing; it is the true *cause* of the results that concerns science.

Dr. Beard in his "Trance and Muscle Reading," says:—"Experiments with human beings, the results of which depend upon the real or supposed character of the subject experimented on, have never commanded, and ought never to command, the homage of science." And in one of a series of articles entitled "The Scientific Study of Human Testimony:"* "The senses, indeed, are not formed, to enable man to solve the problem of Nature." And again in "Trance and Muscle Reading:" "The special need at this stage" (of progress in psychology) "is not so much of experimenting as of thinking, of reading, reflecting, comparing and co-ordinating what has already been done in scientific Europe and America."

It is not always an easy task to find a cause for all the many morbid phenomena that are constantly appearing in man; nor is it much easier to always attribute a cause for their disappearance. To prove how largely man is governed by the subjective side of his nature, Dr. Beard mentions six sources of error, any one of which may lead us to very wrong conclusions as to the cause of many effects constantly presented to us for explanation. The six sources of error are:

1st. "The phenomena of involuntary life in both the experimenter and the subject experimented on."

2d. "Unconscious deception on the part of the subject experimented on."

3d. "Intentional deception on the part of the subject."

4th. "Unintentional collusion of third parties."

5th. "Intentional collusion of third parties."

6th. "Chance and coincidence."

The third and fifth sources of error we will eliminate, as not applying in the present instance. Chance and coincidence are factors of some importance, it is true, but the sources of error which are most pertinent to the cures reported by the mental method advocates, are the first, second and fourth. They may be embraced in the one term, subjectivity. These cures are not due, therefore, either to a transmitted Divine influence, or to the will of the "healer," but they are due to this subjectivity. Every physician who enjoys his patient's confidence, carries this power into the sick room with him, and in happy ignorance of the fact, the patient recovers, assisted more or less by the law of subjectivity. Here, then, is the sphere of the Mental Method of Healing, and here only,—until psychology gives other authority. Any other avowed method of applying it must be based upon deceit, intentional or unintentional, which must sooner or later be discovered, when one of two conclusions will be drawn by the enlightened: either the "healer" is not familiar with psychology, or he is a knave.

Most probably there are individuals who are practicing the mental method for the money it brings them, since all "healers"—so far as I am informed—have specific charges for each treatment. It is, therefore, somewhat difficult to reconcile their practice with their profession of following the example of Jesus of Nazareth, who said to his disciples, "Freely ye have received, freely give."

The originator of the Mental Method of Healing, as it is now practiced, was, no doubt, honest in his belief that he was working in the cause of truth, and that he was a great benefactor of the human

*Popular Science Monthly, June, 1878, p. 174.

race; but, as is the case with his followers, he evidently had not studied his subject.

Here is an apparent paradox which should be conned by every "healer" in our country; every honest professional "healer" should be a student of psychology; but (and here is the stumbling block) no psychologist *can* be an honest professional "healer."

My endeavor in these remarks, has not been to underrate the importance of mental influence, but simply to give the mental method its proper position; to class it where it belongs, with the superstitions which depend for success upon this unknown quantity, mental influence. The mind is a *stupendous* factor in the varied processes of life, and there is nothing surprising in the physical effects of mental influence; the important point that remains unsettled is not what effect *may* the mind produce upon the body, but what effect *may not* the mind produce upon the body.

It may possibly be thought that I have unduly noticed the mental method, and have thereby rendered an unnecessary and undeserved tribute to its importance; but I do not think so. If learned men—university professors and other savants—across the water, are duped by the legerdemain of the trickster Slade, when the judgment of any trained mind should be able to refute his assertions, and his apparent proofs of the miraculous, surely with the whole armament of unreasoning credulity and unreasonable faith, and at least the moiety of existant religious superstitions to back the mental method theory, I feel justified in testing the claims of such a system. As I have said, or implied, the mental method is based upon psychology, *practical, experimental psychology,* but wrapped up as it is with unscientific nonsense, its development does not mean progression, it means retrogression; it means a return from the simplicity of the truths that are now dawning upon mankind to the mysticism of the Platonists, the Rosicrucians, the Alchemists.

Is this the type of evolution that has characterized the nineteenth century?

The mental method is a phase of evolution, but it does not mean progress.

Only that which tends to elevate man's God-like nature—his intellect—is progress; only that which dissolves mystery, which puts groundless fears to flight, and which *unveils* the vast truths of existence, mean progress.

The mental method means degeneration from the high type of psychic experimentation, to a low form of metaphysics. It means retrogression from the intellectual to the sensual, from order to disorder, from law to chaos. It means the elevation of the involuntary life—unreasoning subjectivity—above voluntary ratiocination. It elevates the senses above sense, and silences the voice of reason. As Daniel's superior wisdom interpreted the woefully potent inscription for the last of Babylon's kings, so psychology reads the fate of the Mental Method of Healing; *Mene, Mene, Takel Upharsin:* Wanting, wanting, weighed in the balance and found wanting.

In conclusion, there is a point to which it is probably best I should call attention. It is the view presented by every honest, though unscientific mind, for consideration, viz.: "The mental method disciples make certain claims for their method, and they should in all fairness be granted a hearing; the method should be investigated."

This is apparently a just demand; but really it is only just when all that is involved in the demand is included.

The physician to understand pathology, must first study anatomy and physiology. It is only the quack who dispenses with the usual and necessary course of study.

The student of Sanskrit, or Arabic, finds it necessary to learn the alphabet of the language before he can spell a word, or read a sentence. And to understandingly investigate the Mental Method of Healing, it is just as necessary to first know something of psychology.

Herbert Spencer advises every young man and woman to study psychology. This may seem very formidable, but to be able to discriminate between the true and the false in the various manifest phases of human life, it is an absolute necessity. My advice is, therefore, not to ignore the mental method, but to investigate it; investigate it thoroughly, exhaustively. But, before beginning, study psychology.

NOTE.—Several of the cases used to illustrate points in this paper have been previously quoted by the writer in an article in a former issue of the N. Y. MEDICAL TIMES, entitled "Facts and Fancies."

The Action of Quinine on the Fœtus.—Vadenuke, in *N. Y. Med. Jour.*, arrives at the following conclusions: 1. Quinine taken by the mother passes into the system of the fœtus in the proportion of about one-ninth of the whole amount. 2. The largest amount is contained in the fœtus at the end of two hours. 3. The fœtus eliminates it in a little more than forty-eight hours, and the neonatus in seventy-two hours. 4. Large therapeutic doses given to the mother do no harm to the fœtus. 5. The same is true of large doses repeated every forty-eight hours. 6. Quinine is not an abortifacent 7. It may ward off abortion or premature labor when the mother is under the influence of fever, especially of malarial origin.

STUDIES OF THE PHYSIOLOGY AND IMPERFECTIONS OF DIGESTION.

By Geo. H. Taylor, M. D., New York.

Second Article.

INDIGESTION prompts the sufferer to do something, ostensibly to promote the secretions, particularly of the stomach. This kindly intent not unfrequently includes the liver, which is popularly and professionally charged with recreancy at the slightest digestive provocation.

This purpose is in conformity with the idea that the digestion is proportionate to the secretion by which the digestive act is effected. It assumes, moreover, what is far from being true, that nutrition is in proportion to the amount digested; and that the current needs of the organism for nutritive supplies have no direct connection with the provisions for digesting food.

The means popularly resorted to for the promotion of digestion by increasing the digestive secretions consist in the use of some drug or combination of drugs capable of causing increased transudation from the walls of the digestive organs, and from the far-off and nearly inaccessible liver, of the mixed mucous and digestive secretions, like what occurs in the mouth under similar circumstances.

No doubt, considerable secretion, such as it is, may be urged into the digestive cavity through incitation from physical causes, of the nervous and glandular structures of the secreting organs. But that the aggregate secretions for, say, twenty-four hours, are thus increased, is more than doubtful. Experiments with the digestive organs of animals having artificial fistulas communicating with the cavity of the stomach appear to prove that the secretions are not increased, but only hastened. There is at first a large amount of transudation of mixed digestive and non-digestive *protective* secretion, but this soon declines, and continued application of the physical incitation produces little or no further response. Such experiments indicate that the increase caused by local stomach stimulation is illusory, that the amount of food capable of being digested is not increased, and that the agreeable sensations produced by stomach remedies are probably due to the instant diminution of congestion of the membrane by the forced transudation (which, however, quickly returns) together with the effect of the impressions made on the local nerves. The nervous effect easily becomes morbid by undue repetition.

The correctness of these statements becomes further apparent when it is considered that there is no call in the vital organism for digestion without corresponding and proportionate expenditures of nutritive material; and that it is the demand for nutritive support of vital organs which is the true and ultimate incentive to the healthy digestive act. Since, therefore, remedies directed to the digestive organs solely, can have little or no influence on the *further* career of nutritive material, the influence of such remedies is equally slight for increasing the amount of digestive secretions and the amount of food that is digested. No considerable or permanent increase of digestive power can be secured without coincidently securing the removal from the system of an equivalent of the material displaced by that newly imported. The quickening of the preliminary act of the nutritive process may be disconnected with the terminal act of the process, and therefore the process, *as a whole*, is unaffected by incitation originating at the digestive centres.

Incitation at the digestive centres can therefore only produce the effect of *palliating*, not curing digestive suffering, since the cause of such suffering remains untouched by any local incitation of any portion of the digestive membranes and glands. The palliation may however become disadvantageous to the health of the processes in the following ways:

1. The inciting cause is unnatural, does not have its origin at, nor is it in the least connected with the processes of expenditure, the latter being in general at a distance from the digestive organs. The true incitive of digestion is the influence extended from the expending to the digestive organs through physiological channels. Incitation of digestion produced by other causes practically disconnects the physical relation. Such severance is therefore morbid, reverses the relations of cause and effect, and tends to subvert the equality of function between the extreme parts of the nutritive processes, those that receive and those that eliminate the materials by which nutrition is maintained.

2. Local incitation of the digestive organs practically defeats its purpose. This is to increase the flow of digestive secretions; but incitation produced by physical causes is not a demand for digestive, but for protective or mucus secretion. The increase thus produced has not only no digestive power, but its production by the mucous glands diminishes the amount it is possible for the gastric glands to secrete, since both are derived from practically the same source in the contiguous blood-vessels. The excess of mucous secretion is quite capable of delaying and embarrassing the

digestive act by the unnecessary amount of mucous envelope, preventing due penetration of the aliment by the gastric fluids.

3. The consequences of habitual incitation of the digestive organs on the nervous mechanism connected therewith has been discussed in another connection. It is, however, again referred to in this place, to complete the account of the injury easily caused by remedies for digestion whose effects are restricted to the digestive centres.

Besides reversing the usual physiological order necessary for healthful digestion, the local incitation of the sensory nerves of the digestive organs produces the usual consequences of similar treatment of all functional parts. It cultivates the power of *local* sensibility to an abnormal degree, and local sensations acquire preponderating influence on the judgment. The patient actually *feels* more than is due, in consequence of the undue cultivation of the local sense of feeling; even natural and wholesome functional acts disagreeably affect the consciousness, and acquire power which detracts from that of the will. The most persistent and troublesome aspect of this effect is the subversion of the judgment in relation to dietetic needs. The sufferer becomes the unconscious slave of his feelings; mistakes the excess of feeling in the digestive organs for true desire for food, and is led to commit habitual dietetic errors in obedience to erroneous sensations. The discouraging feature of this nervous accompaniment of faulty digestion is, that the struggles of the sufferer toward recovery are unfortunately in the same line of action as that which caused the affection.

The attempts made in medical practice to obviate disadvantages and ill-consequences arising from local medication of the digestive organs are a full recognition of their existence. The most prominent of the ways of avoiding the evils arising from medicating the stomach, is that of supplementing the natural digestive secretions of the disabled organs of the invalid by those derived from slaughtered animals—known in trade under the name of *Pepsin*—its compounds, commixtures and modifications.

There is a captivating plausibility about applying the gastric secretions as well as the muscular parts of animals to nutritive uses; the one to effect the solution of the other in the stomach of the human being. This must surely be an instance of circumventing nature, and of enforcing bovine energy upon the human species. The device also proves how easily nature may have defects and shortcomings in the adjustment of means to ends, and how easily they may be overcome by recourse to art. The substituted secretion is a *real* one, not a forced transudation of the doubtful quality procured by medicinal incitations of the secretory organs. Digestion is secured at once, without waiting the tardy acquiescence of the vital organism. There is no violence done to the secreting glands, no officious disturbance; the nervous system is in nowise harassed, and if palliation of suffering follows, the source of the digestive defection is deemed to be reached.

The medical considerations underlying the use of the so-called pepsine, through all its preparations, are scarcely less specious and deceptive than those which prompt the use of local gastric incentives and irritants. This will become apparent by an examination of the claims made for this class of remedies:

1. The weakness of the claim for the digestive efficacy of secretions transferred to the human stomach from those of lower animals is shown by the very inadequate amount it is practicable thus to employ. The few grains of pepsin powders, consisting mainly of starch or similar vehicle; or a dram or two of weak solution in wine or other non-fermenting fluid, is considered a proper dose. That such minute quantities can produce no appreciable digestive effect is shown by consulting any modern work of physiology. It will be learned that the natural and usual digestive secretions are measured by *pounds* instead of grains; a quantity enormously in excess of that remedially prescribed, or even practicable to employ. The conclusion derived from well ascertained physiological data is, that no appreciable effect can be produced in the ingesta by the ordinary remedial use of the peptic compounds. The probability is, that the proposed remedy is itself digested with the other ingredients of ingesta, since the remedy consists of both animal and vegetable matter, which are only ordinary constituents of food.

It is said in support of this claim of adequacy of a small amount of digestive secretions to digest a large amount of aliment, that the digestive secretions are analogous to leaven or ferment; that they therefore have the power of indefinite self-multiplication, whereby a small amount will extend its influence through a large mass of ingesta; and that, therefore, only a small amount is requisite to produce large digestive effects.

The argument derived from the analogy of digestion to the fermentive act is opposed by the statement that a very large amount of the digestive secretion is, in fact, requisite for digestion in health; and were it practically true that the digestive principle is thus capable of self-extension, then those natural to even the invalid digestive organs, by means of such unlimited self-extension

in connection with the ingesta, would prove all-sufficient, and could not be materially assisted by the minute additions made by the prescribed doses of the substituted secretions.

The analogy of the digestive fluids to the ferments fails when the ultimate composition of the two classes of substances are minutely examined. The power of a ferment is well known to reside in the micro-organisms which it contains, and which have the capacity of growth and very rapid multiplication. In the digestive secretions, no such organisms having similar power are found; human and animal life can never be endangered by the possible extinction of the last problematical molecule of a ferment.

Every one's experience sufficiently disproves the assumption of the fermentive action of the digestive fluids. This shows that the practical limit of the digestive action of the secretions is soon and definitely reached, and cannot be exceeded; while the active power of even a small amount of ferment is exhausted only by the destruction of the material subjected to its action.

There is equal difference in the modes of origin. The one principle is secreted; the other is independent and self-propagating. The comparison of digestion to fermentation, however interesting to the curious, is unfortunate for hygienic and therapeutic science, because it favors disregard of the conditions requisite for the production in the organism of the requisite amount and quality of digestive secretions. These conditions are practically unnecessary if equivalent secretions can be supplied from without.

Persons desiring to verify the above statements in regard to the definite relation between the secretions and the amount of aliment digested can easily satisfy themselves on this point, by a very simple experiment, using therefor a true digestive secretion.

It is only necessary to place the open end of a common narrow test-tube under the tongue at one side, in such a way that the collected salivary secretions shall flow into it and be retained. In a few moments, two or three drams of the transparent secretions of these glands, unmixed with mucus will be secured. This may now be mixed with a small amount of boiled starch, the kind of food substance to which the digestive power of this secretion is limited. The opaque starch immediately disappears; it has been liquefied and rendered also transparent; it has been digested. By carefully making successive additions of the starch, the limit of the digestive power of the secretion with which it is made to commingle will soon be found. Thereafter, not the least effect is produced on fresh additions of starch. No part of the starch appears to be partly digested. The contents of the test-tube consist of two distinct separable portions, the transparent and digested, and the opaque and non-digested portion. This experiment proves that the chemical law of definite proportions rules in the upper portion of the digestive organs, which affords a fair presumption that the same law extends throughout the digestive sphere; it is also direct evidence that a minute portion of substituted digestive secretion, granting its purity and full inherent digestive power, is entirely incapable of fulfilling the physiological duty assigned to it as a remedy.

4. The therapeutic use of digestive secretions of lower animals is limited in kind as well as quantity, a circumstance equally fatal to the practical utility of this class of remedies. The pepsin and the pancreatine of commerce, and all their varieties, dilutions and commixtures, represent only a small portion of the digestive area. Each successive portion of the digestive organs doubtless performs a digestive service peculiar to its location in the series, and, of course, provides secretions adapted to such use. The physiological work of each segment is necessary for the completion of the digestive act; the extreme prolongation of the digestive tract is necessary for providing the nutritive ingredients which may be required to support special and irregular expenditures of energy.

It is plain, therefore, that the nutritive functions served by the secretions of by far the larger portion of the digestive organs, considered as an area, are entirely unprovided for by a digestion however perfect, which only includes the gastric, or the pancreatic secretions, or even both of them, since the nutrition for which the remaining secretions, those above and those below the stomach and the duodenum, is omitted. The omission of the remaining portion of the digestive area and its functions, implies that as therapeutic objects they may be dispensed with. This inference, from the therapeutic substitution of digestive secretions, does violence to the facts, both of physiology and pathology, and cannot be countenanced by such as take comprehensive views of the subject. The remaining portions of the digestive tract, each in its sphere, are of no less consequence than the limited portions from which are derived the favorite digestive secretions from the lower creature to be employed by the higher. Consistency would not limit the application of the theory to a part, but would include the whole of the digestive secretions.

5. Conceding that the peptic agents obtained

from slaughtered animals are sufficient in quantity —that the kinds of secretions are varied to cover all the requirements of the healthy animal—that these are properly adjusted to the special duties of the successive processes in the digestive act, throughout the extent of the digestive organ; even then, little or no assurance of their therapeutic utility would be afforded. It is still necessary to show that the nutritive needs and nutritive support of function of the human organism are identical with those of the lower animal. The substituted secretion is adapted to supply materials for the support of the energy-evolving functions of the lower animal, and not those of the human kind. So far as these functions may differ, the substituted secretions should be inadequate. This difficulty rests on the conceded principle, that modifications of vital energy have their source in differentiated instruments of energy; and that the material sub-stratum of function must differ in proportion to function.

A CASE OF DOUBLE UTERUS, AND DOUBLE VAGINA.*

BY H. I. OSTROM, M. D., NEW YORK.

Visiting Surgeon to Ward's Island Hospital.

THE case that I will report to you this evening may be classed among the rare anomalies of development of the human female reproductive organs, and belongs to that interesting phase of deviation from acquired structure that is marked by a tendency to revert to primitive types.

Throughout nature the instability of an organism is shown by atavism, quite as strongly as it is by evolution, and hence, when investigation is turned in the direction of pathology—which may be regarded as an extreme expression of the disturbance of equilibrium that can occur within vital action—we find, if the diseases showing constructive power are studied from their histology, that the morbid action is frequently associated—I do not think we can say that the relation is always a closer one than this—with the appearance, and more or less permanent genesis, of embryonic cells.

This is equally true of epithelial and connective tissue neoplasms, both of which present as one of their features, primitively constructed organs, situated in more highly evolved organisms. We also find, where there is a deviation from that type which because of its persistence we have reason to regard as a perfect adaptation to environment, that the departure is either towards hitherto unknown types, that are then developed under the stimulus of a more complex environment; or in the direction of more primitive types, that by the same course of reasoning are to be looked upon as better fitted to other environments; not less perfect than the type lost, but adapted to meet the requirements of less complex, more simple organisms.

I have sometimes questioned whether we were right in regarding atavism as wholly opposed to evolution; for may it not be possible that an organism, after evolving in one direction (it may be to the limit of its capacity,) reverts to a primitive type, and from that standpoint evolves in another direction, reaching a different position from the one attained by the first process? This is only an hypothesis, but does it not explain the genesis of some of the changes, that under favorable conditions develop species distinctions.

Broadly generalizing, we may assume that the highest type of organ performs a single function; that the most perfect function, according to the known laws of differentiation, is accomplished by the activity of a single organ; and therefore, that the duplicated organs of human anatomy, while they may be structurally calculated to perform a function perfectly, are to be considered as an adaptation to our environment, to the necessities of species preservation, rather than as representing an ideal animal construction.

I do not wish to be understood as stating that single organs are found only in the most highly evolved organisms; for against such an assertion, biology opposes the facts: *first*, that in some fishes and some reptiles there is a single ovary, and a single testicle; and *second*, that in the highest type of animal life that we know, the type that shows the most complete arrangement, and most varied adaptability, some of the organs are double; but I wish to draw attention to the order of nature, from the homogeneous to the heterogeneous, and to suggest, that while the adaptation of the organism to its environment, an adaptation, by virtue of the perfection of which the organism exists, and is thus for a brief period enabled to resist the natural tendency to a complete balancing between the forces of the object, and the forces of its particular medium, marks perfection in that part of nature, it is possible that the requirements of the highest types of animal life, types that must be evolved from the present, as surely as the present has been evolved from the past, will be best met by such an anatomy as provides a single organ for the performance of each function.

With evolving environment, such an arrange-

*Read before the Medico-Chirurgical Society, April 20th, 1886.

ment is made necessary; for, upon the premises, 1st, that the object bears a relatively small proportion to environment, we may assume that it is more or less influenced by the latter; and 2d, that complexity of phenomena, a concomitant of evolution, requires differentiation of causes, we reach the following conclusions: (*a*) That there is a mutual relation between object and environment: (*b*) That with evolving environment, this relation being maintained, the causes that precede the phenomena that result from the operation of these two forces, must be multiplied: (*c*) That such a multiplication is best accomplished by differentiation of the object through which we are made cognizant of the phenomena.

The development in man of a double uterus and double vagina is a repetition of the marsupial type of reproductive organs; and it is interesting to notice, as an illustration of the dove-tailing prevalent throughout nature, that where this formation is a normal one, there is a corresponding gradation of structure of the male organs of that species. For example, we find among multiparous marsupials, as the opossum, where the ova are impregnated in both ovaria, that the male of the species is possessed of a double glans penis; and that in uniparous marsupials, as the kangaroo, the glans penis is single. The advantages derived from duplicated reproductive organs are not well marked, for there is no reason to believe that such an arrangement is necessary, either to species preservation, or to plural births. In the absence therefore, of biological reasons, there appears to be ground for the conclusion that the normally developed double uterus and double vagina are evolutionary phases; and that when in some of the lower animals these organs appear single, it is an example of the prediction towards higher forms, that is not infrequently found in nature.

Our knowledge of the morphology of this formation of the uterus and vagina does not extend beyond a failure of the Mullerian duct to coalesce, and develop the type of organs that characterize the human species; the causes of this failure we have no present means of ascertaining, for they belong to the forces that determine normal, and therefore abnormal, blastodermic differentiation.

I was requested to see in consultation the subject of the present report, whom I found suffering from a severe attack of pelvic cellulitis, the etiology of which was not clear. The history of the case, which included a previous, though not so severe an attack of the same character, led me to suspect that suppuration had taken place, and upon making an examination to ascertain the location of the abscess, I discovered the presence of a double vagina, and double os uteri. The patient's condition was not such that I could make a more thorough examination at that time; and, upon my return to her bedside in a few hours, after making the necessary arrangements for opening the abscess, which pointed in the recto-vaginal pouch, I found that the abscess had opened into the vagina. My treatment, therefore, was limited to enlarging the spontaneous opening, and after thorough irrigation with bichloride of mercury, introducing a drainage tube.

The case now assuming a distinctly surgical character, the family physician requested me to assume the entire charge of its treatment. The course was uneventful. The abscess discharged quite freely at first, but subsequently healed; and in a few months, the lady was dismissed as cured. At the earliest opportunity, I made a careful examination of the case, the result of which is here copied from my note-book.

Mrs. P——, aged 25. Dark complexion; rather slightly built; married about two years. The family history shows no anomalous organic development, and her own history points to nothing unusual. There is a slight hypertrophy of the heart, but not sufficient to cause more than an occasional attack of palpitation, when under strong nervous excitement.

Menstruation began at the age of thirteen, and though irregular in recurrence, has not been particularly painful. Since marriage, there have been occasional attacks of left ovaritis.

Coition is sometimes attended with considerable local suffering, and at first was much more so than now, which fact, together with the appearance of the vagina, suggests that a hymen existed. She has never been pregnant, though very anxious to become so.

The external genital organs present no unusual appearance. Upon separating the vulva, the clitoris is found to be well developed, and the *meatus urinarius* in its normal position. The vagina, however, is seen to be divided into two canals of equal calibre, by a firm fibrous wall, that occupies the median line of the body. This wall begins abruptly, immediately behind the vestibule of the vagina, about where the hymen is usually situated, and where the remains of the hymen now appear, and terminates above in such a manner as to form with the mucous membrane of either canal, two blind pouches, into each of which, a uterine cervix is received.

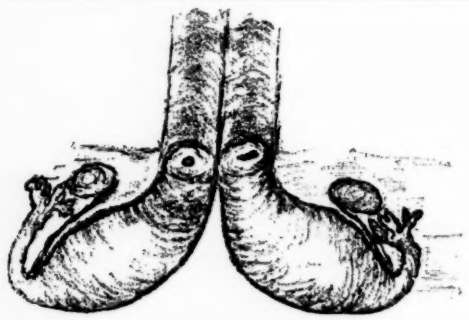
Sims' speculum introduced first into one vagina, and then into the other, shows each canal to be perfectly symmetrical and well developed, with

its respective uterine opening in every particular normal. A probe passed through the os of the right side deflects to that side, and when passed through the os of the left side, deflects in the corresponding direction. During this manœuvre, bimnual manipulation gives the impression that each uterus is an independent body, for the movement of one, is not communicated to the duplicate organ.

The right ovary cannot be clearly defined, but the left gland is discovered without difficulty, probably because of its slightly enlarged, and sensitive condition. There seems, however, no reason to doubt that a right ovary is present, and that menstruation takes place from both uterii. This latter point, I am sorry to say, I have not been able to verify, for, owing to an extreme reluctance on the part of the patient to submit to examinations, it has been impossible to obtain an examination during menstruation.

To accommodate itself to the lateral position of the fundus, the left ovary is situated lower in the pelvis than these glands are usually found, and in closer relation with the peri-uterim walls; it seems to rest in the lower curvature of the left uterus, as that organ bends towards the left side of the pelvis. There is no reason to suppose that a right ovary, if present, occupies a different position from the one described.

I have here a rough sketch of the vagina, uterus, and its appendages, that may serve to convey some impression of what appears to be the relative position of the malformed parts.



The treatment of this case is necessarily limited to excising the wall that divides the vaginal canal, with the object of removing the probable cause of the dyspareunia. But although this operation presents no unusual difficulties, it is positively refused. Should the woman become pregnant, and carry her child to full term, the unyielding nature of the wall tissue would probably present a serious obstacle to the passage of the child, and either rupture during parturition, or necessitate an operation at that time.

In connection with this case, the interesting question arises, why has impregnation never taken place? Possibly this is no more difficult, and no more easy to answer, than the same question applied in cases of sterility, where we have every reason to believe that the male and female reproductive organs are perfectly normal; but the very abnormality of this case forms an incentive for investigating it in every aspect, and for seeking to establish an etiological relation between this deviation from the human type, and the departure from the known laws of reproduction.

Considered alone, the presence of a double uterus and double vagina, cannot be looked upon as a cause of sterility; indeed, several cases have been placed upon record, in which the anomalies remained undiscovered until parturition. We are therefore probably to conclude, that where infecundity co-exists with a double uterus and double vagina, no features are involved that differ essentially from those that oppose impregnation when the reproductive organs are developed in accordance with the human type.

Without here entering into a discussion of the degree to which menstruation depends upon ovulation, it is probable that little more than the ova pass at any time from the ovary, through the fallopian tubes, into the uterus. From this it follows, that if the fimbræ of the tubes fail to grasp the ovary at the time when an ova is discharged; or if the tube is not patulous, and is therefore unable to give passage to the ova, all the functional signs of fertility may be present, and still the woman remain sterile.

Or again, if the fallopian tube is so changed in shape as to oppose the passage of spermatozoa to the ovary, but not altered to such a degree as to prevent the ova from being conveyed to the uterus, impregnation can take place in the uterus only; this is not infrequently opposed by conditions of the endometrium, that are influential in preventing that contact of the germ and sperm cells, which constitute an essential part of conception. Therefore, when impregnation must take place in the uterus, the woman may remain sterile.

Now, in the present case, the position of the ovaries, and the lateral direction of the fundus, renders it extremely probable that the fimbriæ of the fallopian tubes cannot be accurately adapted to the reproductive glands, and hence, the ova, when discharged, are allowed to fall into the peritoneal cavity. It even seems probable that while grasping the ovary in the position that we find it,

the fallopian tube is likely to be bent to such a degree as to destroy its calibre.

Either one of these causes, both of which may exist in the present case, are sufficient to induce sterility; for in one instance, the germ cell does not reach the uterus; and in the other, the sperm cell is prevented from coming in contact with the ova.

PHYSIOLOGICAL CENTRIPETALITY.

By E. P. Banning, Sr., M.D., New York.

Fourth Article.

EFFECT OF VISCERAL CENTRIFUGALITY ON THE UTERUS.

IN my former article I have shown that the muscular envelope of the human trunk acts as a grand centripetal and guardian force in maintaining the ordained upward compaction of the visceral orbs; that an atonic condition of those muscular conditions must induce a letting down of the whole line of viscera, and that such an accident must tend to a corresponding obstructive compression of the inferior, arterial, venous, lymphatic, nervous and fœcal circulations, and thereby produce a corresponding perversion of those functions; and we now come, in order, to consider the effect of such a visceral centrifugality caused by muscular laxity, upon the uterus, specifically with respect to the so-called "occult" force that holds that organ in place. My apology for this is, that whatever that force may be, it is yet an unsettled point; and, of its importance, Professor Thomas, in his "Diseases of Women," says: "The retentive power of the abdomen is one of the most important influences for the support of the uterus, and one of the most neglected in the consideration of that subject." "In my opinion," he adds, its importance cannot be overestimated." Again, as to what that force actually is, Dr. Fillmore Moore says, in his article on "Uterine Displacements," in the December number of The Medical Times: "Every one who has thought on the subject must be convinced that the viscera are not supported by their ligaments, ordinarily, but by some occult force." Again, Dr. Moore says: "On this subject much has been said and written, but I have seen nothing rational or satisfactory in explanation of this point, given."

Such, then, being the facts, acknowledged by such distinguished authorities, let us see if in an analysis of the compound forces of this muscular envelope we cannot find the great desideratum of Dr. Thomas, and also render the identity of the specific supporting force of the uterus less "occult"; for Dr. Thomas has not over-estimated the importance of this question, and he deserves credit for his distinct statement, in advance of the entire phalanx of writers here and in Europe. Whether its conception was a scintillation of his own genius or the result of his attending a course of my lectures on this very subject, when he was a medical student in Charleston, S. C., I do not stop now to inquire. Certain it is, he has enunciated a great and germinous truth, which through all

Figure 1.

Showing a centripetal erectness of the body and upward compaction of the viscera by the strong trunkal muscles,

time must lie as a corner-stone to the true pathology and therapeutics of Uterine Displacements.

To illustrate: By a mere glance at Fig. 1, we see that the mathematical combinations of such a figure must induce a centripetal or centralized state of all the trunkal bearings, or, in other words, a balancing of the whole superior trunk upon and behind the spinal axis or *point d' appui;* a tension of all the trunkal muscles; a consequent expansion of the chest, from an elevated state of the viscera, and a protection of the uterus from abdominal weight, by a steady and firm compaction upward of all the viscera; add to this, that the medial plane of the pelvis is rendered comparatively vertical, and the inferior abdominal cavity made comparatively thin or shal-

low; and also, that the lumbar spinal curve juts forward so as to be vertical to the pubis. By this combination, not only is the descending weight of the whole line of viscera materially impeded, but also the force of visceral gravity compelled by the advanced lumbar curve to fall principally upon the pubis, and not on the bladder, uterus and rectum. Thus, we see that while the muscles are the active, *vertical* force for supporting and compacting the whole line of viscera, that action of those muscles is mainly dependant on erectness of the body, the poising of the chest behind the spinal axis and a tensing of the abdominal muscles, which latter will be in proportion to the lumbar curve and the distance thus made between the pubis and sternum.

Touching the theory of Dr. Moore, that in the chest there is a vacuum and consequent "suction or pumping force" strong enough not only to raise the flattened diaphragm, but also to raise with celerity the whole visceral mass with sufficient force to expel the inspired air, in opposition to the strong atmospheric pressure that forced it in, I must say I am unable to appreciate its force as a *fact;* even if we admit that any steady vacuum space exists between the lungs and the ribs; certainly a deep inspiration, while at its fullest, must greatly tend to diminish, if not actually annihilate it, for a moment; and yet, on this theory, at the moment when this suction pump is filled with expanded lung (and the vacuum is most needed) and is powerless, this vacuum is expected not only to raise the diaphragm and the whole visceral mass (adipose and all), but also to do it with force enough to serve a writ of ejectment on the air which is held down by many square inches of atmospheric pressure—where, then, is all this suction force to come from? To me, it seems more "rational" to explain the restoration of the depressed viscera and diaphragm to their normal position after inspiration, through the surrounding atmospheric pressure upon the abdominal mass, and also to the reactionary muscular contraction excited by the muscular tension from inspiration, as a vertical force; also the horizontal chest force, by the reaction of the springy ribs, and their cartilages, which the pectoral muscles had elevated and placed on a twist or strain in inspiration (something like a bent bow or a spiral coil). To verify the truth that both inspiration and expiration, and all the physiological uses evolved in them, are produced by, and will be enjoyed, in proportion to the body's erectness, the well advanced spinal curve, the tenseness of the abdominal muscles, and the crowded up condition of the viscera; and that the more strongly they are crowded the deeper will be the inspiration and the more forcible the expiration, let any one, (more especially a weak and slender person), have a friend press firmly forward at the small of the back with one hand, with the other one close by the pubis and lift both simultaneously, and they will find their inspiration vastly fuller and more free, and expiration correspondingly forcible; then drop both hands and they will find it impossible to repeat the previous successful effort.

Hundreds of times I have tried this experiment with a uniform result; even in the last days of consumption. Instance: Miss Harriet W., of Athens, Ga., was exceedingly emaciated and each inspiration was a moan and very short, but on placing my hands as above directed, and pressing forward the lumbar spine and lifting the abdomen simultaneously, she made so comparitively an easy inspiration that she called out, "Mother, I've breathed easy again." I placed upon this dying child a support which braced forward the spine and lifted the viscera and elevated the diaphragm, and during her remaining few days, she sent me a frequent messenger to tell me how comfortably she breathed, and whilst dying, she refused to have the brace removed from her, saying, "that's all there is left of me." The son of Col. Robt. Moore, of Philadelphia, returned from a southern health tour just ready to die; he was provoked with his father for wanting to put such a "harness" upon him in his last hours, but to please an agonized father he tolerated it, but exclaimed on the application, "why, father! I *can* breathe now like a major." The parent was excited and hoped, but there was no foundation; in a few days he died, in an instant.

So then, we find in a living figure (Fig. 1,) with a well advanced lumbar curve, a tense and uplifting state of the dorsal and abdominal muscles which literally wedges up the viscera, and tenses the diaphragm, we have almost complete protection to the uterus, bladder and rectum, and the provocative to a full inspiration, and have also secured the *desideratum* sought by Dr. Thomas and the "occult force" of Dr. Moore, without relying upon the questionable "sucking or pumping" theory in the chest.

PATHOLOGICAL CONSIDERATIONS.

In this department, I could never so forcibly and lucidly set forth the true *rationale* of uterine prolapsus, as by quoting from my paper read before the New York Academy of Medicine (Section of Obstetrics) on this question, in April, 1866: "A mere glance at Figure 2 shows almost painfully that a centrifugal state, the very op-

posite of Figure 1 exists, for the spine has retreated behind the proper axis of the body, leaving the whole superior trunk to hang forward of the body's axis, and not to swing behind or to rest upon it. This centrifugal condition causes the chest to droop and flatten, the enciform cartilage to retreat towards the spine, the medial plane of the pelvis to become flat like a dish, the distance between the pubis and sternum to shorten, and the abdominal muscles to become consequently soft and flabby; also the inferior abdominal cavity to become enlarged antero-posteriorly, and the head, shoulders and entire line of weight thus made to descend with a corresponding force upon the uterus, bladder and rectum. The contrast is complete, and whatever concomitant constitutional causes there may be to induce uterine descent, is it not *manifest* that such a condition of the upper and middle trunk as is represented in Fig. 2, *must* tend to uterine descent and act as an obstacle to its radical cure? And is it not also clear that this abnormal pressure must be greatly augmented by this superinduced horizontality of the pelvis?

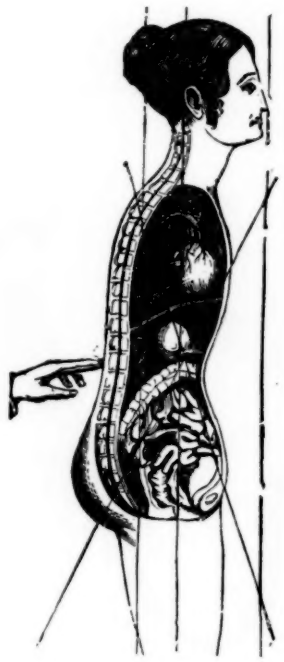


FIGURE 2.

Showing a centrifugal state of the body and viscera through muscular laxity.

THERAPEUTIC INDICATIONS.

On this point, light breaks, as soon as it is conceded that uterine displacement is mainly caused by superincumbent weight, and suggests rational indications of cure: First and foremost, we should not delay in removing the superinduced burdens from the uterus and its appendages, by restoring the body's centripetal bearings as seen in Fig. 1, by pushing forward the dorso-lumbar curve to a vertical line between the ankle and the head, thereby poising the superior trunk behind the body's axis. This also compels the upper sacrum to advance and the inferior to retreat, (the sacrum to turn on its axis as it were), and thereby to restore the normal pelvic obliquity. The obvious result of this is, to shelter the uterus below and partially behind the lumbar curve and superior sacrum, and thus to cause the pubis and inferior abdomen to receive the principal abdominal weight which is supposed to be burdensome to the uterine ligaments." "Thus then it is conclusive that this balanced state of the body upon its own spinal fulcrum and the elevated state of the viscera once established, (by nature or by art) the case is changed from that of a general mechanical displacement to a merely local one in the pelvis, and that both the inherent and artificial resources are then left to contend only with the inconsiderable weight of the uterus alone, whereas, before this, they must contend both with the weight of the uterus and that of the whole line of viscera together with that of the settling head and shoulders.

Thus, then, it is clear that a firm centripetal condition of the entire muscular envelope, especially the abdominal and spinal, is the *sine qua non* of a properly compacted state of all the viscera, and that to attempt to correct uterine displacements without first correcting muscularity and consequent false bearings, is as futile and illogical as to attach an added force to a powerful chain which has one weak hook.

By what means can we restore the normal relations of the abdominal to the pelvic viscera and of the whole compound trunk to itself?

First: Not by constitutional treatment surely; for this is a mechanical derangement, an actual *dislocation*, and should medicine eradicate every vital defect, it could not rationally correct the mechanical perversion; as well might medicine be expected to furnish all the requirements in comminuted fractures and dislocations.

Second. It cannot be surely met by massage alone, by systematic self-efforts, or by any of the good laws of prevention. Such things are of use when the system is intact, but to apply to the law of effort, because of its efficacy in physical *culture* or *conservation*, would be telling a man with a fracture or dislocation that exercise is the

law of restoration—get up and use yourself vigorously and persistently. The obvious tendency of this, we all know, would be to make matters worse. Why? because the laws of prevention and of repair are not identical and often bear no analogy to each other.

MECHANICAL ADJUNCTS.

Cut 3 shows what might be termed a centripetal brace, with its essential points at the *base* of

FIGURE 3.

the *abdomen;* the *lumbar spine* and the *chest* and *shoulders* (which are the three co-ordinate points of power in the body). First, the spring-pole lever with its spinal saddle at the back, restores the spinal axis and supports the weak spine and lumbar muscles; 2d, its springy and elastic shoulder bow, gently invites the weight of the head and chest to swing behind the spinal axis, thus converting the weight of the upper trunk into an erector of the body, a tensor of the abdominal muscles and also, into an actual support to the body; 3d, the abdominal plate with its undulating upward action, on an eliptical spring, elevates and supports the lowest inch of the abdominal organ, from the uterus, rectum and bladder and all of the tubular vessels of the legs and also supporting the stomach, spleen and diaphragm. Thus, each department and function is re-enfranchised in a concordant way, I consciously declare, after a long experience.

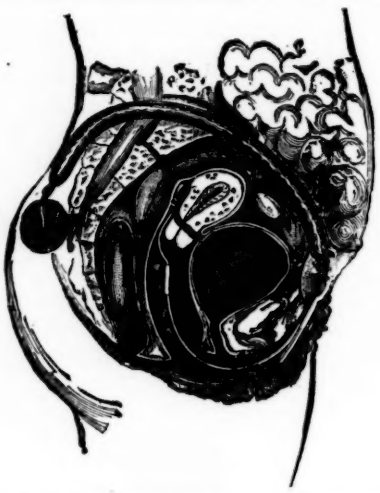


FIGURE 4.

Showing brace and retroversion balance combined, supporting spine and viscera, removing retroversion by drawing back the cervix and pushing forward the fundus.

FIGURE 5.

Hinge ring elevator attachment to the brace, elevating uterus, and lengthening and contracting the vagina by supporting the vaginal *cul de sac.* Is borne even by a sensitive os.

Errata.—In the April number, p. 5, first column, line 43, read *engorgement* for enlargement.

Antipyrine in Epistaxis. (*Medical Age.*)—Dr. Lavrand, in the *Journal de Medicine et de Chirurgie Pratiques*, says: "Antipyrine is certain and prompt in its effects, and is much superior to perchloride of iron, as it is colorless and does not coagulate the tissues like the latter substance. It is used in aqueous solution, of the strength of 1 to 30, applied on lint and inserted as far as possible into the nares.

The nostril is then compressed with the fingers so that the tampon soaked in the hæmostatic is in contact with a large extent of the mucous surface.

CLINIQUE.

CASE OF UNUNITED FRACTURE OF THE HUMERUS.

By Malcolm Cameron, M.D., New York.

ON the 13th of August, 1883, at midnight, was called to see Col. Jos. Y——. Upon examination, found an oblique fracture of the left humerus, involving the surgical neck. The line of fracture was from above downwards, and before backwards. After securing the arm with a body bandage left the patient until 10 A. M. next morning. Found considerable tumefaction but not excessive. The patient was placed under chloroform and the fracture reduced and secured in position by a shoulder cap and internal splints —felt flexible splints were used—secured by the usual roller bandage and supported by a sling at the wrist.

History of patient: age 62, height 6 ft., large frame, fairly muscular, naturally robust, good constitution; he served in the field through the rebellion and was a prisoner in Libby. For two years before the close of the war he suffered from chronic diarrhœa, lost much flesh, and fistula in ano appeared while in service. In earlier life had chancre twice but no history of secondary syphilis. Rheumatism appeared while he was doing military duty and also had marsh fever. Fistula has persisted up to this time, also oft-repeated attacks of rheumatism and diarrhœa. To use his own expression has "taken pounds of colchicum and potash."

He received the fracture from a sheer fall of thirteen feet, sustaining slight bruises upon head and elbow.

In about a week after the accident he became jaundiced, turning as yellow as saffron. Diarrhœa and vomiting persisted for a number of days, with fever of a low type, for all of which he was treated with the indicated remedies. When the above conditions were mitigated, symptoms of pneumonia appeared which were successfully treated by applications of moist heat and remedies. Calc. phos. 3d trit. was now given until cough appeased, when it was suspended. About three weeks from accident acute articular rheumatism appeared, speedily involving the whole right side, making the patient completely helpless. The left lower extremity came under the influence of rheumatism, but not to the same degree as the right. His diet consisted of milk, eggs and milk, Murdock's Liquid Food and gravies; solid food was not tolerated. His stomach was easily disturbed and diarrhœa would supervene from apparently trivial causes. The bandages were carefully attended to daily and kept in position. At the end of seven weeks he was able to sit up in bed, but was very feeble.

The dressing on the arm was carefully removed and I found the ends of the fractured bone in apposition but not united. No signs of tumefaction, muscles flabby and shrunken; the sharp point of the lower portion of the humerus was easily felt with the fingers and by slight deflexion backwards made an elevation on the surface as might be made by a pointed stick. Palpation revealed no evidences of osseous formation. Desiring to set up inflammatory action at the seat of fracture, I applied an internal angular splint with hinge at the elbow, securing the dressing with a spica of the shoulder and gave directions for the patient to use the arm as much as he wished. Becoming dissatisfied with the dressing, considering it clumsy and not well adapted to attain the object in view because of the number of folds of the spica in the axilla interfering with the free play of the vessels and nerves supplying the arm, I removed it at the end of a week and substituted a jacket which in the meantime I had made.

Figure 1.—Front.

Commencing at the hand I applied a roller bandage, covering the fracture with cotton and encircling the arm with a number of splints six inches long and one inch wide and securing all in place with the roller. The jacket was then put on and the patient left to use his arm *ad libitum*.

Description of the jacket: A close fitting shirt of stout canton flannel reaching a little below the waist, fitted with sleeves, an opening at the neck large enough to admit the head only. Up the back of the body and down the back of the sleeve an opening was made on the side of the fracture and eyelets inserted in each margin for the full length

of the opening. This was to permit inclosing the arm and lacing up the garment. A pair of inelastic suspenders were sewed upon the shirt, the bottoms being on the opposite side from the fracture (see diagrams), one suspender coming up

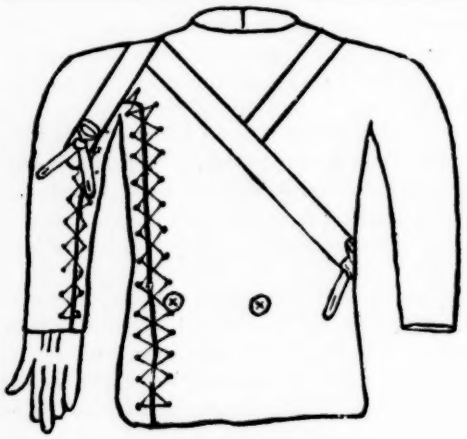


FIGURE 3.—BACK.

diagonally across the breast and the other across the back and crossing one another on the shoulder, leaving the ends hanging. Another suspender was sewed on the back of the shirt, commencing over the middle, ascending diagonally over the opposite shoulder from site of fracture, crossing the breast and was used for a sling to support the arm when at rest. At convenient places buttons were sewed upon the sleeve and the suspenders buttoned on. A stout glove was put upon the hand and fastened to the sleeve after the jacket had been laced. The purpose of these straps and the glove was to support the weight of the arm and to keep the fractured ends in apposition—the "cider-press" splint gave universal lateral support, thus preventing displacement—the straps were then drawn as tightly as required and the arm left free for use. The feeling to the patient was that of great comfort and security. All seams of the jacket were on the outside.

This apparatus was not disturbed for at least six weeks, during which time the patient used the arm daily in various light occupations and when at rest supported it by the sling. Calc. phos. was given every other day, grs. vi, divided into three doses. At the end of six weeks, upon examination, I found union had taken place; over the point of fracture, an enlargement or ring presented itself, showing that osseous tissue had formed.

I cannot state positively that there was not ligamentous union at the lower and posterior point of fracture. I was satisfied with the negative result at the upper anterior portion, and did not wish to destroy any conservative process at the lower portion. The variation in length of humerus trifling. Result of treatment, a sound arm.

A CASE OF RUDIMENTARY PINNA AND ABSENCE OF EXTERNAL AUDITORY MEATUS.

BY E. R. CORSON, M.D., SAVANNAH, GA.

A COLORED male infant, three days old, was brought to my notice with the following congenital defects: Both pinnæ were rudimentary. There was a small skin-flap recognizable as the lobule, while a mere wrinkling of the skin represented the rest of the auricle. The only vestige of an external auditory canal was a minute dimple in the skin. Both sides closely corresponded. The infant was a poor specimen generally, thin and scrawny. I found the mother suffering from congestion of the lungs and high fever. Symptoms of puerperal thrombosis in the pulmonary artery or veins, rapidly supervened, and she died on the sixth day following her confinement. She was eighteen years old, a primapara, and unmarried. The infant died of inanition on the twenty-fifth day, and I was permitted to remove the left pinna. Cutting down on the temporal bone, I could find absolutely no trace of an auditory canal. In the rudimentary pinna I found a small cartilage, irregularly spiral in shape. They are represented in the accompanying cuts *ad naturam*.

Cocaine Anæsthesia.—Dr. J. Leonard Corning informs us through the *N. Y. Med. Jour.*, Sept, 19, that it is possible to prolong the anæsthetic effect of cocaine to any desired extent by simply obstructing the circulation of the blood through the tissues into which it is injected, thus effectually preventing its escape from the area desired to be rendered anæsthetic. Now, Dr. M. J. Roberts tells us in the same journal, Oct. 24, that he has performed two operations, one "femoral supra-condyloid osteotomy, for genu valgum," in a boy four years of age, the other "excision of the hip-joint," both under the influence of superficial and deep injections of cocaine, with no suffering to the patient. The circulation in the part was controlled by elastic bands. Truly, this is a wonderful and epoch-making discovery; for if we can secure sufficient anæsthesia to perform capital surgical operations, and yet avoid the unpleasant features of ether and chloroform, we have made a wonderful discovery.

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SUMMER DEATH RATE IN NEW YORK.

THE list of deaths in this city during the summer is confined in a great measure to the crowded parts of the city, where an enormous population live in tenement houses, and in narrow streets, and ill-cleansed and badly ventilated courts. In these places the heat of summer tells in a fearful fatality, especially among children, carrying off through the influences engendered by it, from three to five thousand persons annually. The portion of the city intersected by wide avenues and streets, with houses calculated to meet the wants of the wealthier portion of the community, probably has as small a death rate in summer as is found in most country towns. Even here, the death rate would be still less if the streets were properly cleansed and the air stirred and vitalized by the foliage of growing trees. If the streets in every part of the city were shaded in part by the proper kind of trees, the air would be purified, and the amount of life-giving ozone infinitely increased. Country villages, generally, have an abundance of shade, but they not infrequently lack in those other essential factors for health—proper drainage and a sufficient water supply. Especially is this the case where the water supply depends upon cisterns and wells, the water not infrequently being poisoned by the percolation through the soil of the contents of cess-pools and privies.

In our large cities, legislative enactments can compel the free planting of trees in all our streets, and the necessity of the measure should be so brought home to the public as to compel its speedy adoption. Steps have already been taken to improve the condition of tenement houses, as the plans for every new building must be submitted to and receive the indorsement of the proper authority; but the problem of proper cleansing the streets is much more difficult to decide. It is a question whether the plan of flushing the streets every morning with salt water, as suggested by Dr. Stephen Smith, would satisfactorily settle the question. There might, and probably would be, a necessity for a thorough scientific investigation of the effects likely to be produced upon the atmosphere and vegetation by the daily evaporation of such enormous quantities of salt water in our streets, with the impurities which they must necessarily contain if taken from the rivers on either side of the city, before it would submit to the expenditure of the millions of money necessary to carry the plan into effect. There can be no doubt, however, that the fearful mortality in the crowded portions of our city requires the adoption of some sanitary measure more perfect and far-reaching than any we now possess.

A NEW PATHOLOGY.

THE theories of disease are innumerable, some of them passing away almost with the utterance, and others so suggestive and so evidently containing grains of truth as to help establish principles which may make clear what is now so dark and unsatisfactory in the investigation of the causes of disease. Possibly the suggestions recently made by M. Gauthier, in a communication to the *Academie de Medicine*, upon ptomanies and leucomanies may partake of the latter character. The position taken is, that normal vital action is always attended by the manufacturing of poisons, which unless eliminated produce disease. In his investigations, he claims to have discovered in the muscular glands five new alkaloids perfectly defined and crystallizable, which by experiment have been found to produce a marked action upon the nervous system, as shown in general weariness, somnolence, and even purging and vomiting. These substances are alkaline

bases appearing during life in the tissues, and from their being derived from albuminous matter, are called leucomanies.

Gauthier's experiments and those of Pettenkofer and Voit, show that some of the vital processes take place without the aid of oxygen, and are due not to combustion, as is the case with the larger part of the vital changes, but to a putrefaction which develop that group of substances called leucomanies, and which, unless speedily eliminated by the excretory organs, produce, by their action upon the nervous system, various forms of disease. A deranged condition of the digestion, the bowels, kidneys, or skin, by any cause such as imprudent exposure to cold or heat, intemperance in eating or drinking, or excessive physical or mental fatigue, may so impair their activity as to prevent the rapid elimination of those poisons produced by the vital changes in the tissues, and give rise to diseases more or less violent or varied in their character, according to the conditions of the system.

Professor Peters, in commenting upon the statement of his colleague, says: "Can the medical mind hesitate a moment between the parasitic doctrines full of shadowy hypotheses, and this new doctrine, as luminous as it is precise, which explains the phenomena of normal and abnormal life, by life itself in action?" Of course, the investigations of Gauthier will be submitted to the careful scrutiny of physiologists and microscopists, who will determine by renewed and repeated investigations, whether leucomanies exist in the muscular glands, or in sufficient amount to produce the pathological conditions attributed to them. It is very certain that poisons are developed both in animal and vegetable substances, often so subtle as to require the utmost skill in detecting them, which not only produce serious disturbances not infrequently fatal to life.

A poison exceedingly violent, and even sometimes fatal in its action, has been detected in cheese, where a peculiar chemical change had taken place, and there is no doubt but what most of the cases of poisoning recorded from the use of canned goods are the result, not from any chemical action between any portion of the cans and the contents, but to a chemical change in the substance itself, owing to an unfit condition when canned, or to the cans not being hermetically sealed. Quite recently, a family in Brooklyn, after having eaten freely of canned tomatoes, showed marked evidence of having been poisoned. One of the cases was marked by severe gastro-enteritis, great tenesmus, coma, followed by convulsions of an epileptic character, during which and after, the patient was drenched in perspiration, with a thready pulse. When the bowels moved, the movements were black, tarry, and bloody. The physician attributed the poison to the chloride of zinc used in soldering the top of the can, "and which," he said, "through carelessness had entered in sufficient quantity to poison a whole family." None of the symptoms were such as could possibly be produced by any amount of chloride of zinc, which could have entered the can. The suit brought for damages against the house which put up the goods, was promptly dismissed. The poison was probably the result of some chemical change in this particular can, the cause of which could not be ascertained. All kinds of canned goods are now put up with so much care that there is not much more danger of being poisoned by them when they are sent out by reputable houses, than there is in being struck by lightning.

THE INFLUENCE OF CERTAIN ANTIPYRETICS UPON THE HEART AND BLOOD-VESSELS.

THE influence of those substances belonging to the phenol group of organic compounds, for which is claimed the power of reducing temperature, has been studied almost entirely from that standpoint, and in the administration of some of these drugs, the physician has found the reduction of temperature to have been obtained at the expense of physical disturbances which will only permit of their use in certain well-defined conditions, and only then with great caution. It is known that kairin, thallin, hydrochinon, resorcin and antipyrin, will all reduce temperature, at least, temperature in febrile disorders; and the probable relation of these drugs to the circulating apparatus has been the subject of careful study, and experiments of Dr. H. C. Beyer, of the United

States Navy, who has reached some very valuable facts and intelligent conclusions respecting the indications for, and the use of the drugs. The objection to the employment of kairin and thallin as antipyretics is, because they are apt to cause heart paralysis, especially affecting the auricles, in doses only slightly larger than is sufficient to produce a lowering of the temperature. But this objection becomes an absolute danger when we take into account the destructive influence, as shown by experiment, upon the blood corpuscles and tissues generally.

Hydrochinon and resorcin, although not exerting the same weakening, and directly paralyzing influence on the ventricle of the heart, which is peculiar to kairin and thallin, both paralyze the auricles, the venous side of the heart, and greatly lower the tone of the walls of the veins. The extra amount of blood which is driven into the veins through the increased action of the ventricle, is only with great difficulty returned, the danger being not so much from failure in the power of the ventricle as in kairin and thallin, as from the danger of bleeding the person to death into its own veins. This view is confirmed by the intervisceral and pulmonary congestion found by Dujardin Beaumetz, and others, on post-mortem of animals killed by resorcin.

Antipyrin seems to be free from these objections, as it increases the heat radiation by extensively dilating the veins and capillaries, and thereby safely reducing the temperature, while at the same time it has a tonic influence on the heart, the veins and muscular tissue, and slightly increases arteral pressure.

From these experiments it would seem that antipyrin is the only one of the phenol group of antipyretics which can be used except with the greatest caution. The careful experiments of the author shows that this drug is comparatively safe, and, at least, no harm is likely to follow its use. Not infrequently, especially in pneumonia, the rapid reduction of temperature, and holding it there will, if the drug has to be repeated, give time for the action of vital force, and the proper use of remedial agents. Experiments thus far show that antipyrin will accomplish this purpose better than any of the so-called antipyretics. This drug will probably take its place by the side of quinine, as an exceedingly valuable remedial agent.

FACT VS. FICTION.

AN esteemed correspondent says: "Ask your prominent ex-high dilutionist if he ever heard of a case of blood-poisoning that was cured with arsenicum, c. m. m. and m. m. and c. m.,—but principally with the c. m. m.

"Ask him if he ever heard of a terrible case of small pox which recovered after a dose of variolinum c. m. m.

"These may be classed as 'fictitious clinical experience,' but I can prove they are *solid facts*. If the ex-high dilutionist *don't remember*, I can give names and dates."

We presume that our "ex-high dilutionist" has heard of many wonderful recoveries *after* a variety of things have been done, but that is no proof that the result was due to the means employed.

It is all very well to make positive assertions, but these alone are never sufficient to substantiate "solid facts"!

A woman was once given a prescription for an affection of the breast, with the direction to apply it to the painful part. She literally bound the prescription upon the breast, with startling effects!

A prescription of sulphur (30) was once given a woman for chronic headache, and at the end of several months, as she had experienced no pain, she was asked if the effects of the medicine was not wonderful, when she replied: "To tell the truth, I never took it!"

We respectfully urge our correspondent to read carefully the articles of Dr. Price, which have appeared in our columns, and learn what imagination has done in the cases reported there, then perhaps, he will not be so ready to attribute wonderful results to his c. m. m.

VARICOSITIES DURING PREGNANCY.

PROF. PARVIN has called attention to the dangers during pregnancy, incident to varicose veins, not only from their rupture, but from the formation of a thrombus which may result fatally through pulmonary embolism.

Dr. Parvin suggests that a pledget of soft linen be placed over the varicosities, and the whole limb supported by a flannel bandage, to be worn only during the day. In our experience, it is far better to attempt to remove the cause by changing the position of the uterus, and the varicosities oftentimes disappear. This result may be accomplished, *first:* by faithful and persistent postural treatment. *Second:* by gentle support of the abdomen, by means of thin, elastic flannel, fitted to the patient,—which makes a most agreeable support in many cases,—or the rubber elastic may be used. It is very important that the bandage supports without making undue pressure, and that it feels agreeable to the patient; for if it is not a comfort, it should not be continued.

Postural treatment during pregnancy, is an adjunct which should not be lost sight of, as it will relieve many unpleasant symptoms, dependent upon this condition.

THE VANDERBILT CLINIC.

THE profession, and we may even say, the public at large, are again placed under lasting obligation to the Vanderbilt family, in the endowment of a dispensary by his four sons, in memory of their father, to be connected with the College of Physicians and Surgeons, at Tenth Avenue and 59th and 60th Streets, this city, with a quarter of a million of dollars!

The building is to cost $150,000, and $100,000 will constitute a fund for its support.

This will afford the college an excellent opportunity for clinical teaching by the means of outpatients, and is a most important adjunct in its work, and one that will be appreciated by the profession.

It will be remembered that Wm. H. Vanderbilt gave $500,000 to the college before his death, which paid for the land, and will put up the building, the corner-stone of which was laid on April 24th last, for the college building proper.

Then, a daughter has endowed a Maternity in this same connection, which is already being built.

It is one thing to have the money, and quite another the inclination to make such use of it, and the name of Vanderbilt should go down to posterity as a true representative of one of this latter class!

There are still many deserving charities which we hope some other wealthy man may be induced to help on, in emulation of the Vanderbilt family.

Such noble acts as these, in order to do justice, and to stimulate others, should be recorded in black and white here, notwithstanding, we are confident, they are written in letters of gold, in a higher sphere!

May such impulses multiply, until all such objects are sufficiently provided for.

"He is truly great, that is great in charity."

BIBLIOGRAPHICAL.

THE PRINCIPLES AND PRACTICE OF SURGERY. By Frank Hastings Hamilton, A.M., M.D., LL.D., Late Professor of the Practice of Surgery, with Operations, and of Clinical Surgery, in Bellevue Hospital Medical College; Consulting Surgeon to Bellevue Hospital; to the Bureau of Surgical and Medical Relief For the Out Door Poor, at Bellevue Hospital; to St. Elizabeth's Hospital; to the Hospital for the Ruptured and Crippled, etc., etc. Illustrated with 472 Engravings on Wood. Third Edition, Revised and Corrected. New York: Wm. Wood & Co. 1886. pp. 990. 8vo.

This is a thoroughly revised edition of a well and favorably known work, which has been long in contemplation, and it shows well the progress which has been made in surgical science.

The original scope of the work was to furnish a text-book which long experience in teaching and in the practice of surgery had satisfied the author to be most needed by students and by practitioners. The present edition has the advantage of the author's more than forty years of study.

The text has the excellent qualities of being concise, practical and most understandable—three most important requisities! Its brevity is not made at the expense of the necessary description required for a thorough comprehension of the subject, in many instances the minutiæ being unusually complete.

Its great attractiveness to students is found in the diction in which the text is presented, making a readable book.

There can be no mistake in adding this to one's library of surgical literature.

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS. Edited by Wm. Pepper, M.D., LL.D., Assisted by Louis Starr, M.D. Volume IV. Diseases of the Genito-Urinary and Cutaneous Systems. Medical Ophthalmology and Otology. Philadelphia: Lea Brothers & Co. 1886.

The various diseases of the genito-urinary system are discussed in Vol. IV. by able specialists in the different departments and the most advanced ideas, especially in pathology and in surgical treatment are given in a clear and intelligent manner. This department gives an excellent treatise not only upon gynæcology but upon troubles of the bladder and kidney connected with pregnancy.

Diseases of the skin are ably but concisely treated by Duhring and Stelwagon. The ear and eye are looked upon from a medical standpoint alone and are discussed more particularly in connection with the causes which may arise from disease existing in other organs and can only be reached by general treatment. This volume fully maintains the reputation of the work for a careful and clear presentation of advanced thought on the various subjects discussed.

INTERNATIONAL COPYRIGHT.—The *Century* magazine for April has a most interesting and timely article on "Cheap Books Under International Copyright," in which we note that

"The passing of an International Copyright Bill will not make American books any dearer, nor will it in any way affect the prices of books already published; therefore the Greek and Latin classics, the great literatures of Italy, Spain, France and Germany, the whole of English literature to this year of grace, and all that part of American literature which was in existence in 1844, will be just as cheap as it has been. There will be no change of any kind as far as these things are concerned; and exactly how great a proportion of the books worth reading are included in these various classes it is impossible to say, but it is quite nine-tenths, not to say ninety-nine hundredths. The passing of an International Copyright Bill can raise the price only of the future writings of foreign authors, and these only when they are suitable for republication here in the cheap pamphlet libraries."

PURPURA. By Geo. W. Winterburn, Ph.D., M.D., Editor of the *American Homœopathist*, etc., etc. New York: A. L. Chatterton & Co. 1886. pp. 240. 12mo.

The author says: "I have endeavored to garner the experience and wisdom of the profession, and to present it in such a convenient shape that he who runs may read." * * * "In addition to this I have secured some thirty odd herotofore unpublished cases, many of them of great value as studies in therapeutics."

A CYCLOPÆDIA OF DRUG PATHOGENESY. Issued under the Auspices of the British Homœopathic Society and The American Institute of Homœopathy. Edited by Richard Hughes, M.D., and J. P. Dake, M.D. Part III. Arnica–Berberis.

It is a most agreeable surprise to find this work going on with regularity, and that we already have about 600 pages of it!

We are anxiously looking for the man with that kind of ability required to condense it into a hand-book.

We regret to see the announcement of another work in materia medica which, judging from the sample sheets, will be no better than its predecessors!

We have had enough of this repetition of unreliable and more than useless symptomatology!

DUNCAN BROS., of Chicago, have issued a "Chart for Urinalysis," and a "Chart of Fevers," which will be found useful.

Borated Vaseline in Erysipelas.—Dr. Romit (*Pevista Clinica*, 1885) uses boracic acid in vaseline, 1 part to 20, as an application to the inflamed skin in traumatic erysipelas. The application is made over the affected part, and for some distance around over the healthy integument, and is repeated morning and evening.

CORRESPONDENCE.

TUBAGE OF THE LARYNX.

THE question of the use of tubes, dilators, etc., in the larynx, is not a new one. Desault, at the close of the last century while attempting to pass a catheter into the œsophagus, by mistake entered the larynx and only discovered it when he made use of the injection. Noting the tolerance of the larynx under the circumstances, he advocated the catheterization of the larynx for stenosis, due to compression of tumor or foreign body in the œsophagus as possibly of service, but, as a rule, preferred tracheotomy. In 1858, Bouchut employed short cylindrical tubes in the glottis, in cases of croup, and strongly advocated their use. Unfortunately, his success was not marked, for in seven cases he lost five, the others having to submit, as a last resort, to tracheotomy. Trousseau threw the weight of his influence against it and in favor of tracheotomy, and this, combined with the non-success, led to its total abandonment. When laryngoscopy had shown later the tolerance of the larynx under manipulation, a new impetus was given to the question of dilatation for stenosis. Schrœtter, of Vienna, has had excellent results from long continued use of dilators in relieving permanent strictures. In these cases, however, tracheotomy must first be resorted to. After the constriction has been fully dilated, the external opening can be closed, and a bougie inserted daily through the mouth, and retained for from fifteen to thirty minutes. The treatment is often very tedious. Dilators for rapid relief of the constriction are also in use, but they have given rise, in many cases, to serious inflammation and œdema, even in the hands of experts. In 1880, Dr. McLean of Glasgow, advocated the insertion of a catheter into the larynx in cases of impeded respiration, and made use of it in the following cases:

1. Patient, 55 years of age, undergoing a surgical operation, when the catheter was introduced to prevent blood from entering the trachea.

2. Patient, 42 years of age, suffering with œdema glottis, when the catheter was introduced, a No. 12, and retained 39 hours. There was no difficulty in drinking.

3. Patient, 38 years old, with œdema glottis, and a No. 12 was retained 36 hours.

Such was the status of laryngeal catheterization or "tubing," when a short paper appeared in the *New York Medical Journal* of last year, by Dr. O'Dwyer, of this city, on "Intubation of the Larynx," in cases of diphtheritic croup. For ease of introduction, the doctor made his original tubes of bivalve shape, but finding that the swollen mucous membrane was liable to get between the blades, and cause obstruction, he changed the shape to a cylindrical one. By further experiments, he brought it to its present shape, namely, a hollow tube, circular in form at the centre, to aid in its retention, of a length from 1¼ to 2½ inches, and having a projecting collar extending round the entire tube, and at its anterior angle, a small hole through which a thread can be passed. This collar, when the tube is in position, rests upon the ventricular bands, and prevents slipping into the trachea. Having attached a silk thread to the tube, it is ready for introduction. In order to do this, we have a curved instrument, somewhat the shape of an applicator, and a hinge-jointed piece with a screw-hole at top called the obturator which fits within the tube, and into this the applicator is screwed; when the tube

duly placed, a sliding attachment presses upon the top of the tube and frees the obturator, which is then removed, the process being aided by means of the hinge-joint.

When the child is firmly held, with the head bent backwards, a gag is placed in the left side of the mouth, but this can be dispensed with when the child is quite young, and the left fore-finger of the operator is passed into the throat, and by lifting, the epiglottis allows the admission of the tube into the larynx. When satisfied that the tube is in the larynx, the applicator is released and removed, and after a few minutes the finger is again passed in and pressed against the tube, while the thread is loosened and withdrawn; the primary intention in using the thread, is to permit of the prompt withdrawal of the tube should it pass into the œsophagus instead of the larynx. We have also an instrument called the extractor, for the later removal of the tube. This can sometimes be accomplished without the use of an anæsthetic, but the latter is generally required. The tube, in position, rests with its upper end on the ventricular bands, so that it does not interfere with the functions of the epiglottis, and with its lower end nearly to the bifurcation. It will be seen that this procedure of Dr. O'Dwyer's is not a revival of Bouchut's plan—we believe the doctor did not know of it—but an entirely new departure in the treatment of two most serious affections, diphtheritic and membranous croup.

Dr. O'Dwyer, in a late number of the *Medical Record*, reports fifteen cases treated in this manner:

Case 1.—Child, three years and two months. Diphtheria of the larynx, pharynx, and posterior nares; albuminuria. Recovery.

Case 2.—Sixteen months. Diphtheria of the larynx and pharynx. The autopsy showed pseudo-membrane extending from the pharynx to the minute bronchi.

Case 3.—One year and eleven months. Diphtheria of the larynx and posterior nares; rickets; double pleuro-pneumonia; albuminuria; convulsions. This patient had never been able to walk or even stand. On the seventh day after the onset of the attack, a croupy cough appeared with signs of laryngeal obstruction. A tube was inserted on the eighth day, in consequence of severe dyspnœa and marked cyanosis. After the insertion of the tube, the child coughed for about twenty minutes, and then fell asleep. Twenty-eight hours after the insertion of the tube, it was expelled during an act of coughing. Twenty-two hours later the tube was replaced on account of a returning dyspnœa, and on the next day a larger tube was substituted. On the fourth day after the first insertion of the tube, it was removed, the child showing at the time a broncho pneumonia. It died in the second convulsion, three days after the removal of the tube, and the disappearance of all croupy symptoms. The autopsy showed a double broncho-pneumonia; pleura hæmorrhagic; bronchial glands enlarged; trachea and larynx congested, while a pseudo-membrane extends along the trachea into the second division of the bronchi; kidneys not enlarged, markings fairly distinct; liver congested; other organs normal.

Case 4.—Three years of age. Diphtheria of the larynx; albuminuria; double pneumonia. Tube inserted for marked laryngeal obstruction. Expelled in fifteen minutes, when it was re-inserted, coated with nitrate of silver ointment, for its astringent effects (the doctor has found this efficacious in exciting cough and promoting expectoration). The tube was removed at the end of twenty minutes, but the dyspnœa rapidly increasing, it was replaced at the end of an hour, with evident relief. On the second day, tube again removed, but it had to be replaced. Child died two and a half days after the first insertion of the tube. Autopsy: larynx pale, œdema of the folds, no pseudo-membrane; trachea and bronchi congested; lungs œdematous; extensive bronchitis; pneumonia of both lungs, posteriorly; kidneys congested and markings distinct.

Case 5.—Three years and four months old. Tuberculosis; diphtheria of the larynx, pharynx and posterior nares; albuminuria; pneumonia. This patient was convalescent from post-nasal and pharyngeal diphtheria on November 26th. On December 13th, croupy cough and re-appearance of the pseudo-membrane in the pharynx. On the 28th, breathing obstructed, tube inserted, and the child soon fell asleep. It was removed twenty-four hours later, and twelve hours after this again inserted, to be removed in twelve hours. The dyspnœa returning and progressing, the tube was replaced thirty-six hours after removal, relieving the child so that it fell asleep. The relief not continuing, and the dyspnœa re-appearing, a larger tube was inserted with complete relief. The tube was removed five and a half days after its first insertion, the temperature being 105.2 deg., pulse 162, respiration 56 and irregular; no dyspnœa. On the next day, no pseudo-membrane was visible, and all croupy symptoms had disappeared, but the child was in a state of collapse, and died two and a half days after removal of the tube. The autopsy showed the lower two-thirds of the left lung to be very firm and infiltrated; recent diffuse pneumonia; several small cavities the size of a bean in the right lung; tubercular peri-bronchitis.

Case 6.—Three years and four months old. Diphtheria of the larynx and pharynx; pneumonia. A tube was inserted on the second day on account of extreme dyspnœa, which was greatly relieved thereby. The membrane extended to the tonsils, and the child died two and a half days after the insertion of the tube. The autopsy showed the membrane extending from the pharynx through the trachea; lungs œdematous and congested; small masses of pneumonia consolidation.

Case 7.—Three years and six months. Diphtheria of the larynx and posterior nares; pertussis; pneumonia; albuminuria; convalescent from broncho-pneumonia. On December 21st, croupy symptoms appeared. On the 24th there was dyspnœa, cyanosis and great restlessness, when the tube was inserted with great relief. Coughed up pieces of membrane through the tube. On the 26th, the tube was removed and found free from obstruction. On account of the rapidly returning dyspnœa, the tube was re-inserted, but without relief. On again removing the tube, a cast of the trachea was expelled, and then re-insertion of the tube gave relief to the dyspnœa, but the child died thirty-eight hours after the insertion of the tube. At the autopsy, it was shown that the upper respiratory tract contained pseudo-membrane; bronchial glands enlarged and cheesy; tubercular peri-bronchitis, and some diffused tubercular tissue through the right lung; interstitial emphysema of the left antero-posterior lobe; kidneys large and boggy, with the cortex thick, and the striations indistinct.

Case 8.—Three years and seven months. Diphtheria of the larynx, pharynx, and posterior nares; albuminuria; recovery. The post-nasal pharyngeal diphtheria began December 25th, and on the evening of the 28th, the tube was inserted. Slept quiet all night, and took food next day. On the 31st, the tube was expelled, and found free from

mucus, but the dyspnœa rapidly returned and was followed by a comatose state. The tube was replaced and relieved the dyspnœa, but the child remained unconscious for three hours, and then began to rally. The tube was removed three days and fifteen hours after the first insertion, when the dyspnœa had disappeared, and the child was bright. The urine contained albumen, hyaline and fine granular casts. The voice returned seventeen days later.

Case 9.—Eleven months. Diphtheria of the larynx and pharynx; albuminuria. Fauces and pharynx covered with a pseudo-membrane, with croupy cough and dyspnœa. A tube was inserted and removed nine and one half hours later, but soon replaced on account of the returning dyspnœa. It did not give relief, and the child died with extreme dyspnœa, fourteen hours after the insertion of the tube. The temperature, when the tube was replaced, was 105.6 deg., respiration 66, the urine containing fifty per cent. of albumen by bulk. At the autopsy, there was found swelling of the epiglottis, and an overlapping of the aperture of the tube by the epiglottic folds, with intense bronchitis and œdema. The secondary dyspnœa in this case was believed to be due to the extension of the membrane into the bronchial tubes.

Case 10.—Three years and three months. Diphtheria of the larynx and pharynx; albuminuria; double pneumonia. On the first day of the croupy symptoms, the dyspnœa became extreme, and in the evening the tube was inserted, the child being quieted and falling asleep. On the next day, no dyspnœa, coughed small pieces of membrane through the tube. On the following day the tube was removed and its calibre found clear. Seventeen hours later the dyspnœa being so extreme, the tube was re-inserted, and with immediate relief. On the next day the membrane was visible in the pharynx for the first time; albumen present. The tube was removed in the evening, but re-inserted in half an hour, the child dying soon afterwards, thirty-six hours after the first insertion of the tube. At the autopsy, there was found a pseudo-membrane in the pharynx and larynx, thick and tenacious, extending into the minute bronchi-pneumonic condition of both lungs posteriorly; hæmorrhagic points in the pleura; glands moderately enlarged.

Case 11.—Four years eight months. Diphtheria of the larynx and pharynx; albuminuria; recovery. Convalescing from whooping cough. On December 28th, it had pharyngeal diphtheria, from which it was recovering January 3d. On the 5th, hoarseness with croupy symptoms, swelling of the pharyngeal walls, and re-appearance of a patch of pseudo-membrane on the left tonsil; urine, albuminous. On January 6th, pharynx covered with a dark gray slough of false membrane, and a small piece of membrane expelled while coughing. The laryngeal obstruction was marked, having increased slowly and progressively. Tube inserted in the evening, and after coughing for half an hour, the child fell asleep. On January 7th, resting easily and no dyspnœa, but does not take food as well as on the day before. The tube was removed two and a half days after insertion, and in a few days well.

Case 12.—One year old. Diphtheria of the larynx; varicella; in a miserable condition, born prematurely and never thrived. Tube inserted on the second day for extreme dyspnœa, which was relieved, but the child was too weak to cough, no pseudo-membrane. Child died eighteen hours after the insertion of the tube with double pneumonia. Autopsy: Epiglottis normal; no membrane in the larynx, except over the ventricles; trachea lined with a thin layer of false membrane; broncho-pneumonia of the lower portions of both lungs, more marked on the left side.

Case 13.—Three years, nine months. Diphtheria of the larynx and pharynx, associated with whooping cough: recovery. This child was in poor condition. On January 3d, diphtheria of the pharynx, apparently well on the 13th. Croupy symptoms appeared during the night, with marked dyspnœa, and on the evening of the 14th, a tube was inserted which gave relief and sleep, with a good respiratory murmur over both lungs. Tube removed thirty-nine hours after the insertion. The croupy signs returned, but no dyspnœa, and on the 24th, well.

Case 14.—Three years and five months. Diphtheria of the larynx and pharynx. Tube inserted on the second day, and removed later to see if clear, then replaced, coated with nitrate of silver ointment to excite cough. Died twenty-one hours after the insertion. The larynx, pharynx, trachea and bronchi nearly to the base of the lung, contained a macerated pseudo-membrane; beginning pneumonia in both lungs, with marked œdema at the base, so that the secretion could be easily pressed out from the bronchi.

Case 15.—Five months and twelve days. Diphtheria of the larynx and posterior nares; diarrhœa. On January 14th, varicella. On the 19th the first sign of croup, and on the 20th, dyspnœa, which was relieved on the 21st by the insertion of a tube, but the child was too weak to cough. The relief was sufficient to permit of sleep, but death occurred on the 22d, twenty-one hours after the insertion of the tube. On removing the tube it was found to be clear. Autopsy. The larynx, trachea and left bronchi contained pseudo-membrane, extending to the base of the lung, a less amount in the right lung; well marked double broncho-pneumonia. *Résumé:*

(1). All the cases occurred among the class known as "Foundlings."

(2). The tube was inserted in every case of severe laryngeal obstruction that occurred in the Asylum, without regard to its hopeless character.

(3). One-third of the cases were babies, aged sixteen, twenty-three, eleven, twelve, and five months respectively, an age at which recovery from tracheotomy is extremely rare.

(4). Two (cases 5 and 7) had tuberculosis, a disease which is in itself absolutely fatal.

(5). One case (3) was suffering with rickets and died in uræmic convulsions three days after the disappearance of all laryngeal obstructions.

(6). The tube requires no attention after its insertion to keep it clean, and if a piece of membrane should close it, which is not likely to happen, the tube is held so loosely in place that it would be immediately expelled.

(7). The inspired air is warm and moist, and thus prevents the drying of the secretions in the tube.

(8). The head and shoulders of the tube do not rest upon the vocal cords, but just above them on the ventricular bands. There is never any ulcerations of the cord, but slight ulcerations may be produced by the head and lower end of the tube, when retained for a long time, but this can do no harm.

(9). There is not the slightest danger of the tube slipping through into the trachea.

(10). In most cases semi-solid food is taken well from the beginning, but it usually takes twenty-four hours for the child to learn to swallow liquids. Occasionally in very

young children, it is necessary to feed them through a tube.

(11). The mouth gag is intended only for children who have back teeth, with babies there is no difficulty in keeping the mouth open with the finger.

Dr. F. E. Waxham, of Chicago, has operated seventeen times, with eight recoveries, the ages varying from sixteen months to five years. Six cases were under three years of age, and seven were diphtheritic, two conditions under which tracheotomy is rarely successful. The ages of the successful cases were four at five years; one at two years and two months; three years; four years, and 20 months respectively. All were in imminent danger of suffocation, and in five cases tracheotomy had been proposed and declined. In every case shreds of membrane had been expelled. All the cases, but one, had been seen by other physicians, all agreeing as to the diagnosis and severity of the conditions.—*N. Y. Med. Journal.*

Dr. Northrup (*N. Y. Med. Journal*), reports another case, a child two years and nine months of age. Had been sick for five days, when, on account of extreme dyspnœa, a tube was inserted, and relief afforded. The tube remained in position for six and a half days, and was then coughed out. At this time the child was in good condition, but had complete aphonia. Two weeks later, eats well, talks and sings. During the treatment of this child, a baby, eighteen months old, was seized with naso-pharyngeal diphtheria and died.

Dr. Ingalls, of Chicago, reports two cases. One, a child, two and a half years of age, in the third stage of diphtheritic laryngitis, in whom the dyspnœa was relieved, but it died of failure of the respiratory functions within forty-eight hours; the other, five and a half years of age, and died in a similar manner.

Dr. A. B. Strong, of Chicago, reports a case of catarrhal laryngitis in a child, two years of age, in whom the tube was inserted and left for one hour, the child sleeping during this time, and free expectoration having taken place. On the next, dyspnœa returned, and tube re-inserted, only to be pulled out, by the string left attached, by the child, twelve hours later. Four hours later, the dyspnœa was so extreme, that death seemed imminent, and as the No. 3 could not be replaced, a No. 2 was substituted, and relief given at once. At the end of third day tube removed, and in a few days the voice returned.

We have here a record of thirty-six cases, which we have given more or less *in extenso*, as seemed warranted by the importance of the therapeutic measure suggested, and which undoubtedly has a bright future before it. Of these cases fourteen recovered and twenty-two died, or four per cent. But if we carefully study the cases as given by Dr. O'Dwyer, and we regret that we cannot give those of Dr. Waxham in full, and ask what would have been the result and surroundings if tracheotomy had been resorted to, the question presents a different phase. The absence of blood or preparations for a more or less bloody operation, the almost hopeless torture of an apparently dying child, or if the operation is accomplished, then the appearance of the projecting tube, the dry tongue, the wheezing or whistling of air, and the drying of the secretions in the respiratory tract, together with the steaming kettle, the increased attention and care demanded by the patient, with the frequent cleansing of the canula, present a picture which is distressing to the physician and harrowing to the parents. Now how is it with the measure under consideration? It requires some little skill, it may be, to guide the tube and place it where you want it, but in a minute it can be done, and that without cutting or presenting any detail of preparation, only an applicator, no more formidable, in a sense, than the larnygeal brush, and in a few minutes, after some irritating coughs, relief of the dyspnœa and a sleeping child. After a time the tube can be removed in order to see how permanent may be the relief, and replaced as before, if necessary. Children may even ask that it be replaced, as related in one case. Do we not all know of cases where the doubtful question has been decided by the piteous appeal of the child "to be let alone"? Another advantage which it seems to possess over tracheotomy is the fact that with the tube the children are enabled to cough and thereby expel the mucus which collects. An objection, which experience has not decided, is, that the opening in the tube is not large enough to admit sufficient air for older children or adults. Should this prove true there is no doubt that it will be remedied at once. In regard to many of the cases quoted we may apply the words of Bouchut in summing up the results of the use of the canula: "It had produced what we might expect from an instrument of that nature; it had prevented asphyxia, and had avoided a grave operation, namely, tracheotomy, which the course of events would have rendered uselèss."

These instruments can be obtained of Mr. Hugo Keller, Manufacturer of Surgical Instruments, No. 106 W. 37th Street, who makes them under the personal supervision of Dr. O'Dwyer, and thus all important modifications will be at once given to the profession.

T. M. STRONG.

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TRANSLATIONS, GLEANINGS, ETC.

LANOLIN; ITS USE IN THE TREATMENT OF DISEASES OF THE SKIN.*

MY attention was attracted not long since to an able and exhaustive address delivered by Prof. Oscar Liebreich, on lanolin as a new basis for ointments. The investigations of this eminent chemist and physician clearly showed that he had produced a cholesterine fat far superior in its action on the skin to either glycerine fats or mineral oils. In the course of his investigations with this substance, in showing its great absorptive action when applied to the skin and in contrasting its utility especially with mineral fats or petroleum products, he claims well-founded, as he terms them, objections to the employment of the latter as basis for ointments. Let me in this connection quote these objections side by side with my own, which were made after careful investigation some years ago, especially upon vaseline and cosmoline as basis for ointments.

Liebreich has succeeded by his investigations in producing an agent as a basis for ointments which not only possesses this absorptive action that is so necessary, and that he can justly claim for lanolin, but by its neutrality its own decomposition is out of the question, and consequently it will not irritate the skin. It is a substance, from these valuable merits, which I regard as even superior to lard, the hitherto most acceptable basis for all ointments. Lanolin, Liebreich states, has its origin in keratinous tissue, and is manufactured chiefly from wool, by "transforming the wool fat into a milk, and then subjecting it to a centrifugal action." By this process, he further adds, "a thin milk and cream are

* An extract from an article by Dr. John V. Shoemaker in the Med and Surgical Reporter, April 3, 1886.

obtained, just as when milk is subjected to centrifugal action, and the cream contains lanolin in a pure condition. More than 100 per cent. of water can be kneaded with it, the result being a yellow, very plastic ointment.

Cases having eruptions on various parts of the body had lanolin ointment used on one portion, lard ointment on another, and petroleum ointment on still another. The effect of the application of these bases were strikingly different upon the same subject and in the majority of cases. The lanolin was found to be rubbed in with ease, the absorption being rapid and the medicament held in suspension, and in contrast with the drug in the other ointments to be more decided in its impression upon the parts, For example, the employment on the skin of a 5 per cent. carbolic lanolin ointment, and the same quantity in lard and in cosmoline, produced rapidly in the former a numb sensation, less marked in the lard ointment and even less so or almost an absence of effect in that of the cosmoline ointment. The experiments so far conducted show that lanolin requires much less for an application for an effect, and therefore it is particularly economical as a basis for ointments. Again, the slight tenaciousness of the ointment fulfils a most valuable purpose in keeping it in contact with the skin. This property prevents it from greasing up the surrounding parts, or from running off, which it rarely may, even when the integument is most highly inflamed.

THE BROMIDES.

In *Gaillard's Medical Journal*, Feb., 1886, we find an exceedingly interesting article entitled "The Bromides; their Physiological Action, Therapeutical and Toxic Effects, Alone and in Combination," by Wm. B. Hazard, M.D., of St. Louis, Mo., and formerly Superintendent and Physician to the Insane Asylum of that city. Written with especial reference to the use of this class of remedies in convulsive epilepsy, the article presents a theory of their action, and a discriminating differentiation of the respective preparations, which is suggestive to the practitioner.

"Though the potassium salt, for a long time, was considered the only effective one, and great importance attributed to the metallic element of the compound, it has since been demonstrated that it is the bromine which produces the desired effects. Hammond and others have obtained the characteristic sedation of the entire nervous system, which marks the physiological action of the metallic bromides, from the use of a solution of pure bromine in water.

"The peculiar action of bromine and of the bromides, as such," says Dr. Hazard, "is exerted upon the entire nervous system, ganglionic cells, fibres and nerve endings; at first and most markedly upon the motor mechanisms, These agents depress and finally abolish all motor activity, operating first upon those cortical centres which have to do with volition, afterwards benumbing, and, finally, abolishing the reflexes; those connected with respiration and circulation being the last to submit. All this takes place without any preliminary excitation of these centres. The few cases which exhibit signs of excitation soon after administration of these drugs are clinical curiosities. Most probably the excitement in these cases is due to some factor that has escaped recognition and record."

The mechanism of the general nervous sedation, which every one recognizes as the outcome of the full action of these preparations, is still under discussion. In opposition to those who think that this effect is due to the production of a contraction in the arterioles and capillaries of the brain and spinal cord, our author offers the following views:

"The first step in the production of a convulsion is anæmia of the brain or, at least, a considerable portion of it. Now, the bromides hinder the occurrence of convulsions in most cases. If their action produces anæmia of the brain, they should hasten the advent of convulsions—not prevent or delay such action. It is true that when an animal is poisoned by excessive doses of these agents, in some instances convulsions do precede death. This is true particularly of the potassium salt. The way in which such convulsions are produced is this: the heart's muscular substance is directly poisoned, the blood can no longer be sent through the pulmonary circulation with sufficient celerity, it becomes venous from defective æration and the convulsive centre in the medulla oblongata is consequently excessively stimulated. Asphyxia results, and convulsions occur as from asphyxia from any cause. When the functional activity of any organ is lessened, less blood is called for and less is sent to it. Therefore it is to be supposed that an anæmia of the brain—comparative to the normal condition of its circulation—is one of the consequences of bromide action, not the peculiar and typical cause of the effects witnessed after their administration.

"The necessary changes induced by these agents are within the molecules of the nervous substance. Hydrocyanic acid causes a sudden cessation of molecular interchanges and, consequently, in the production of nervous energy. This occurs in the ganglionic cells of the entire central nervous system. After the same fashion, the bromides arrest the same form of action in the same localities, but in a slow, constant and manageable manner.

"The bromides differ in action among themselves. In some of them, the effects belonging to the element with which the bromine is combined are very apparent. In others, the irritating or corrosive action of the bromine predominates, limits the dose and restricts the therapeutic application of the compound. In others still, the chemical union is so feeble that the elements entering into the combination too readily part company, and irritating effects or explosive accidents may be expected.

"Thus, the bromides of the non-metallic elements are mostly very unstable and are of very little interest from a medical point of view. The compounds of bromine with iodine—monoter—and penta—bromides, have been sparingly used, but they are highly irritating, give the specific effects of the iodine preparations in general, and can be replaced by the more manageable iodides. They give the local effects of bromine, but on this account cannot be given in sufficient quantity to produce the constitutional results to be had from the less irritating bromides."

Hydrogen with bromine forms the well-known *hydrobromic acid*, which, next to pure bromine, would seem the most eligible preparation for exhibition when the effects of bromine are sought for, as it contains nearly eighty parts of bromine to one of hydrogen. But its highly corrosive properties, even when largely diluted with water, in which it dissolves with great facility, demands that it is to be given in large doses. One of the other bromides is usually preferable, because of less bulk of the menstruum being required, and absence of the disagreeable "setting on edge" of the teeth occasioned in most persons by the use of large quantities of the acid. Hydrobromic acid has much the same effects as the other bromides, but the disadvantages mentioned will always restrict its employment. Strangely

enough, some observers claim that its use in epilepsy is without benefit and even injurious.

Arsenic bromide (in solution) has been warmly recommended as a specific in diabetes mellitus of neurotic origin. While there is no doubt at all about the good effects obtained from arsenic and the bromides when used conjointly in this affection, there is every reason to believe that such a combination in solution is impracticable. An arsenic bromide is easily enough obtained, but it is resolved into hydrobromic acid and ordinary white acid as soon as it is brought in contact with water. The logical method of obtaining the effects desired is to give full doses of some preparation of arsenic of known strength, and, at the same time or alternately with it, that one of the bromides which experience has shown is easily tolerated by the patient. To my own knowledge, this is a most effective method of treating this, ordinarily, intractable affection. It seems especially applicable to cases of diabetes occurring in young individuals and in those who have shown no tendency to obesity when they were in ordinary health.

Zinc bromide offers no advantage over the oxide or sulphate. Like all zinc preparations, it is effective in a very small proportion of cases of epilepsy. Its value depending upon its metallic constituent, it cannot be given in doses sufficiently large to insure its specific action as a bromide. Theoretically, it ought to be very efficient; practically, it is found wanting.

The *bromide of iron*, if a most unphilosophical compound in practical application, exerts all the irritating effects of bromine itself; consequently it cannot be used as a substitute for the more manageable bromides, while as a ferruginous tonic, it is not to be compared in efficiency with combinations of iron with the organic acids or with the corresponding chlorine compounds. In fact, it is practically useless except in the preparation of the other bromides.

Bromoform (tribromomethane) and *ethylic bromide* are similar in their effects to chloroform and sulphuric ether, and fully as dangerous. Monobromated camphor produces no effects which are not as well, if not better, obtained from the camphor alone. As a depressor of sexual excitement, it has not sustained the claims of its first advocates.

Magnesium bromide is too unstable for convenience in prescribing, it being decomposed partially before its crystals can be formed by evaporation.

Calcium bromide is stable in its composition, freely soluble in water and alcohol, and solution, not particularly disagreeable to the taste. It is easily tolerated and produces the characteristic bromide effects with promptness and certainty. It is especially useful in all cases requiring the use of calcareous preparations in their management. Hammond has found it especially applicable to hysterical cases and to the treatment of epilepsy occurring in infants.

It seems probable that the calcic element, which forms twenty per cent. of its mass, may endow this preparation with some very desirable qualities not possessed by the other bromides. Lime is a very essential element in the food, being especially necessary in that provided for children, while it is more frequently lacking in the diet of hand-fed infants than is commonly supposed. It must be furnished if the body is to reach any ordinary degree of perfection in growth or development. The hysterical woman is usually a half-starved creature, living on a diet of sugar and bread made from superfine white flour, from which the lime has been to a great degree removed. One reason that the calcium bromide proves so suitable for hysterical and rachitic subjects may be found in the fact that it furnishes a supply of this indispensable material in a not especially disagreeable form combined with the bromine which is needed to quell nervous irritability. It contains one-sixth more bromine than the bromide of potassium, hence its unusual hypnotic power when compared with that preparation. It is the best of the bromides of the metals of the alkaline earths, and is a formidable rival of those of the alkalies next to be considered.

Potassium bromide is the best known and most thoroughly tested of these preparations. Composed of nearly two parts by weight of bromine to one of the metallic element, it is very effective in moderate doses, in producing the typical bromide manifestations. Potassium, like sodium, calcium and lithium, being one of the normal constituents of the body is usually tolerated for a considerable time without grave deleterious results; still, like all the potash salts, the limit of tolerance is reached earlier than with some of the compounds just enumerated. It is very certain that the extreme depression of the heart's action and general muscular weakness, so often observed when it has been given a long time in very large doses, are to be mostly referred to the potassium it contains and not to the bromide. Sometimes this peculiar depressing effect upon the heart and muscular system generally, is one of the chief ends sought, as in maniacal attacks, especially those of epileptic origin. In these, the other bromides cannot take its place. In all other conditions, this action should be modified by admixture with compounds which do not possess this quality, or these should be substituted for the potassium salt. When no one of these can be obtained, a combination with belladonna or hyoscyamus will, for a time at least, correct the direct potash depression.

Sodium bromide is preferred by many to the potassium salt, because of its less offensive taste, not producing an acneform eruption, and because the peculiar toxic effects known as bromism are less speedily brought about by its use. It is somewhat less effective as an anti-epileptic drug, but it may be taken for a long time with the greatest benefit if combined with some of the more soluble bromides. It requires a larger quantity of water or alcohol for its solution than the other effective bromides, but this can scarcely be the sole reason that its effects in epilepsy are less pronounced than the others. This may, however, be one of the elements in lessening its activity in this direction. It is best given in combination with the potassium, ammonium, calcium or lithium salt, or with them all. When thus combined, it proves just as efficacious as the other constituents of the mixture, while it lessens the cost, and does not add to the repugnant taste of the mixture.

Ammonium bromide is acrid, disagreeable to the taste, and especially prone to produce an eruption upon the skin. It does not, however, depress the action of the heart, and renders the action of the other bromides more energetic when combined with them; therefore, it should not be administered by itself in large amounts or for long periods, except in cases in which the effects of cardiac sedation are to be avoided. In moderate doses, it seems to have a soothing effect upon the skin, instead of causing irritation as it does in large doses. It may be given to lessen the annoyance in some forms of pruritus. It is best given in combination with the other preparations of the same class, to secure a stronger and more immediate impression than could be obtained from the same dose of them if given without the ammonium compound. Aromatics or bitter tonics should be given along with it to diminish the disagreeable taste of this salt.

Lithium bromide is the ideal compound of its class. It is the most soluble of the bromides, dissolving in a little more than half its weight of water, at the freezing point. It does not depress the heart; has very little tendency to cause eruptions and ulcerations of the skin; contains an immense proportionate amount of bromine—79.8 parts to 7 of the metal, and induces sleep with smaller doses than any of the other similar preparations. As Dr. Weir Mitchell pointed out as long ago as 1877, it is, in every way, the most valuable of the bromides. The high price demanded for it has, no doubt, greatly restricted its employment in medicine. It should be remembered that the salts of lithium, unlike those of potassium, are not destructive to the tissues. Like those of calcium and sodium, they are normal constituents of the body, and seldom, if ever, hurtful to it. It may, consequently, be given for long periods and in effective doses."

Having thus pointed out the peculiarities of the different medicinal preparations of this class, the doctor gives, in brief, the results of nearly twenty years' experience with these preparations in practice:

"The potassium bromide was early found to allay all forms of morbid sexual excitement." The bromides continue to keep up their reputation in this regard. They induce a condition approaching local anæsthesia in the mucous membrane, not only of the genito-urinary tract, but in the pharynx and larynx as well. From these observed effects, it has been deduced that they ought to prove useful in seminal losses which are so frequently brought to the notice of the physician. But, in my own experience in treating such cases, I have been enabled to secure very little success, except in cases where the trouble depended upon a condition of actual congestion or inflammation of the lumbar region of the spinal cord. In most of these cases there is atony of the cord from over-stimulation; these do not bear the bromides well. Atropia is much more effective. In irrepressible masturbation among the insane, the bromides do little good. In fact, I know of no form of medication that will suppress this disgusting condition. Perhaps methodical local treatment with a solution of cocaine would prove effective. As an aid to the suppression of this pernicious habit when the patient is anxious to overcome it, the bromides are of essential service in rendering the victory, which is in reality a moral one, more easy of atonement. *In these, as in every medical case, each individual must be made the object of special study, otherwise there can be no hope of therapeutic progress.* Too much must not be expected from the action of any drug as such, the individual hygiene requres as much attention as the administration of remedies. Mental and moral influences are included as well as the physical surroundings.

"Chordee and moderate degrees of priapism are relieved by the bromides, but when the latter becomes extremely marked, they are of little effect, even when pushed to the utmost.

"Dysmenorrhœa, especially if accompanied by ovarian hyperæsthesia, is almost always relieved by a combination of sodium and ammonium bromides. The addition of belladonna or hyoscyamus adds to the efficiency of the treatment. It is in only extremely rare cases that obstruction exists from narrowing of the internal *os uteri*. Of course, if this be present, operative interference is demanded. It will be found that the trouble can be removed without any dilatation or cutting operation in most cases. Imperfect development of the ovaries from precocious excitement of the emotions, from overworking the brain in school during the developmental period, or from the deleterious effects of the infectious diseases, especially scarlatina, as pointed out by Lawson Tait, is responsible for a very large proportion of cases of dysmenorrhœa. The bromides, properly combined as before indicated, will do more to relieve such patients than the most elaborately contrived pessary or gynecological operation, if removal of the ovaries be excepted.

"Insomnia is best relieved by the bromides. That they are not always effective is freely admitted. The reason for their failure is generally to be found in lack of attention to the peculiarities of the individual case. In delirium tremens, for example, ounce after ounce of the bromides may sometimes be given without inducing sleep. In such cases nourishment is urgently demanded and should precede treatment by drugs. The bromides are not the only hypnotics which fail because of inattention to this point. Opium or morphine is too often given until the patient dies from cardiac exhaustion before sleep is obtained. After effective alimentation is secured, or before the outbreak of the most pronounced symptoms the bromides are the best agents to calm the terrible nervous irritability. Congestion of the brain, due to over-use of the mind, which is common enough among students and professional men, is most rapidly relieved by the bromides. If the potassium salt alone is used, the depression of the heart arising from the potash is apt to leave after it a condition of low spirits that detracts much from the beneficial results. This is, to a great degree avoided, if a combination of the ammonium and lithium salts with or without the potassium bromide is employed. Although the bromides have no direct effect in lessening the calibre of the arterioles, and thus preventing the access of blood, yet, by reason of their slowing the processes of tissue metamorphosis, they are in the highest degree valuable in this condition by lessening the ability of the structures to make use of the blood that is sent to them, hence the attraction for it being prevented, after a short time, the supply is decidedly diminished. Thus, the sleepless individual is not *compelled* to sleep, as he is by chloral or opium, but is permitted to fall into a natural slumber, if the surrounding conditions are otherwise favorable. One grand advantage possessed by the bromides alone among hypnotics is, that there is no tendency to the formation of an appetite for them. The slavery of the victims of alcohol, chloral, opium, haschish, chloroform, ether, tobacco and cocaine, is too well known and dreaded to require more than a passing reference in this place. Nothing of the sort is known to arise from the use of the bromides.

"These preparations have a very marked action as local anæsthetics upon the mucous membrane of the pharynx and larynx, whether given in full doses as an internal medicine, or applied directly to the surface in solution as a spray. Hence they are of great value in throat affections in relieving painful conditions, in rendering the parts tolerant of manipulation, and in relieving spasmodic cough of laryngeal origin. They are not so efficacious in the cough of phthisis or of deep-seated lung affections, as they diminish the power of the respiratory muscles to some degree, although to no such extent as the opiates. Attacks of spasmodic asthma are frequently prevented by full doses, while the attack itself, if not of great severity, will soon yield to the influence of these preparations. Vomiting, if connected with catarrh of the pharynx, such as that which is so annoying in phthisis and in chronic alcoholism, is often very effectually quelled by their use.

Corneal Opacities.—Dr. Dantziger (*Archiv fur Ophthalmologie*) advocates the treatment of old opacities of the cornea by friction performed daily, and continued for two or three months if necessary. When the opacity is of moderate size, but of considerable density, it is recommended that it should first be scraped away, and the friction, or massage, commenced as soon as the epithelium has been reformed. The scraping is performed with a Graefe's knife, used in the manner in which one scrapes away a blot with a penknife. Antiseptic precautions are used, and iodoform is applied as a dressing; cocaine produces sufficient anæsthesia. By the fifth to the eighth day the epithelium has generally been reproduced, and the "massage" is then commenced. A minute piece of Pagenstecher's ointment is introduced, and the lid is then moved from side to side over the cornea with the forefinger, with a rapid to-and-fro movement, for about half a minute. Some hyperæmia is produced, which should not last more than a few minutes; if it last as long as half an hour, the treatment must be used cautiously, and may have to be abandoned. An improvement from 20-200 to 20-50 in three months would, perhaps, about represent the average result of the cases, but in some it was much better.—*Brit. Med. Jour.*

The Local Therapeutical Value of Lactic Acid.—Lactic acid is destructive of pathological tissues, while its effects upon healthy structures are far less marked and generally not noticeable at all. When applied to fungus spots or patches of lupus the diseased tissues were destroyed, whilst the healthy were untouched. Lactic acid takes the place of Volkmann's spoon in many cases. In inoperable fungus, disease of bone, and infiltration of bone by carcinoma, lactic acid gives good results. Prof. Mosetig has applied it superficially, and also injected it into the parenchyma. In the first case he applies the ac. lactic. pur. directly to the fungus, lupus, and carcinomatous ulcers. It is best applied by soaking a piece of lint the size of the ulcer in the preparation and laying it on. No superfluous moisture must ooze from the lint. This is to be covered with a waterproof covering to prevent absorption from the lint. This may be occasionally exchanged for a freshly prepared paste of lactic and silicic acids, which is to be spread on impervious paper to the thickness of the back of a knife. For protecting the neighboring parts fat or collodian may be used. If Prof. Mosetig is not perfectly certain of the soundness of the neighboring surface, he uses no protective but allows the acid to play freely on the adjoining skin or cicatricial tissue. This never does any harm; at the most it simply irritates the parts. For parenchymatous injection he employs an aqueous solution of from 50 to 70 per cent., of which he injects from ½ grm. to 1 grm. In large patches of disease two to three syringefuls may be injected. For the sake of convenience, he allows the dressing to remain on twenty-four hours, as although the application generally causes rather sharp pain, and the duration of the pain probably indicates the duration of the activity of the drug, it might appear more rational to remove the dressing when the pain ceases. After removal of the dressings the part is bathed with warm water and the spot covered with rubber paper. Fats are to be avoided as they diminish the activity of the acid, if they do not destroy it altogether. Before a fresh application, twenty-four hours at least should elapse; it is best of all to wait until the slough is cast off, and during the interval dress only with water and rubber paper. —*Medical Prese.*

Opium Habit.—A writer in the *American Medical Journal* says: "In our treatment of the morphine or opiun habit, if we gradually lessen the dose daily, giving barely enough to keep the patient in a tolerable condition, and see that he gets good nourishing food, and give him very small doses of chloride of gold and sodium—the one hundredth of a grain every three hours—with phosphate of potassium in alternation, we need not resort to substitutes, and yet we soon witness signs of improvement. As we withdraw the morphine and feed our patients, the renewal of life proceeds, and within a week or ten days—in one month at farthest—we can so completely renew them as to enable them to live without morphine. They may feel weak for a time, for they are comparatively new, and may suffer from temptations, but if due caution is observed they will enjoy a permanent cure."

Lobelia Inflata.—Dr. V.N. Reichard highly recommends lobelia inflata as a local application for indolent sores, chronic erysipelas, and especially in incised wounds, in which latter class of cases it acts as an hæmostatic and astringent. Bring the edges of the wound together, hold them for a few moments, while a pledget of cotton, wet with tincture of lobelia, is applied.

Surgical Meteorology.—The *New York Medical Journal* says that, according to Dr. B. W. Richardson (*Asclepiad*), the time is favorable for operation:

1. When the barometer is steadily rising.
2. When the barometer is steadily high.
3. When the wet-bulb barometer shows a reading of five degrees lower than the dry-bulb.

"When, with a high barometer and a difference of five degrees in the two thermometers, there is a mean temperature at or above 55° F.

The time is unfavorable for operation:

1. When the barometer is steadily falling.
2. When the barometer is steadily low.
3. When the wet-bulb thermometer approaches the dry-bulb within two or three degrees.
4. When, with a low barometrical pressure and an approach to unity of reading of the two thermometers, there is a mean temperature above 45° and under 55° F.

Ozoniferous Essences as Antiseptics.—Listerine possesses essential properties analogous in their effects to the ozoniferous ethers so highly recommended by Dr. Benjamin Ward Richardson and others as deodorizers and disinfectants for the sick-room, and should be used in the same way—sprinkled over handkerchiefs, garments, and the bed-linen of fever cases.

INFANT'S FOOD.—Dr. Stutzer, of Bonn, Food Analyst for Rhenish Prussia, reports Carnrick's Soluble Food to contain 18.22 per cent. of albuminoids, a large quantity of the bone forming inorganic substances, and other solid constituents of milk, the milk being previously treated with pancreatine. The food is reported as the best out of several examined.

—Dr. J. Solis Cohen says the two great principles in the treatment of naso-pharyngeal catarrh are to keep the parts clean so as to let them have a chance to get well of themselves, and to take care of the general health.

MISCELLANY.

—Amyl nitrite is said to be an excellent antidote to cocaine.

—Quinine by inunction is said to be an excellent way to administer the drug.

—Sea-water is said to contain one grain of bromine in about thirty-four ounces.

—It is said that if mustard be mixed with the white of egg, instead of water, a plaster may be made which will draw thoroughly without blistering.

—A fully-equipped sanitarium, with Dr. G. H. Simmons as resident officer, is located at Lincoln, Nebraska. The profession should bear this in mind in referring patients.

—Dr. Strong, Chief of Staff of the W. I. Hospital, reports 736 patients treated during the month of March, with a death rate of 3.53 per cent.; 1,292 patients have been treated during the first quarter of the year, with a mortality of 5.96 per cent.

—The *Medical Record* says the total annual output from the medical colleges in Chicago reckoned from the graduating classes of the year foots up—regulars, 285; irregulars, in which is included all graduates from so-called homœopathic and eclectic colleges, 215.

—The United States Steam Heating Co. are making preparations to extend their service to the upper part of the city. Not only can heat be supplied on tap like croton at a price not exceeding that of coal, but power furnished for elevator and electric lighting purposes.

—Dr. Gorham, of Albany, calls attention to the fact that during the past winter that city has been threatened by the presence of two epidemics of highly contagious and fatal diseases, typhus fever and diphtheria, which, owing to the rigid enforcement of suitable hygienic and precautionary measures of the health department, were confined to narrow limits.

—Special attention is being given in most of our colleges to railway surgery and the shock occasioned by railway accident. The necessity of particular instruction in this department may be seen from the fact that the number of cases treated in the hospitals of the Missouri Pacific system alone is stated to be over one hundred thousand during a single year, requiring the attention of one hundred and forty-nine surgeons.

—The N. Y. Homœopathic Medical College graduated forty-two students at the last commencement. Among the new made physicians was two sons of Prof. J. W. Dowling, the elder, J. W. Dowling, Jr., having previously received the degree of M.D. from the State examining board. The young doctor carried off the faculty prize for the highest standing in all the branches taught and also Prof. Talcot's prize for the best report of his lectures.

—Among 1,173 railway officials examined in France, in 224 the visual powers for colors was imperfect, independent of any other lesion; 118 hesitated in distinguishing the different colors; 41 distinguished red easily, but confounded green, blue, and gray; 4 were perfectly color-blind; 63 confounded red, green, and gray. Those who presented an alteration of chromatic power sufficient to prevent clear distinction of signals were not intrusted with the care of a train. The examination of railway servants before they are employed by the company excludes men with Daltonism from being employed in running the trains. The proportion of color-blind subjects was 5 per cent. Many others, however, did not distinguish colors clearly. It is suggested that colors should be included in public instruction. The number of blind persons in the world is estimated at 1,000,000, the largest proportion being found in Egypt.

—Dr. Dio Lewis says the worst cases of stammering may be cured if the stammerer is made to mark the time of his speech, just as it is ordinarily done in singing. He is at first to beat on every syllable. He begins by reading one of David's Psalms, striking the finger on the knee at every word. You can beat time by striking the finger on the knee, by simply hitting the thumb against the fore-finger or by moving the large toe in the boot. One hour's practice each day will suffice.

—Kaskine, the much advertised "new quinine," has been investigated by *The Druggists' Circular*, and found to contain over 99 per cent. of cane sugar, without even an infinitesimal medication or flavoring. It is thought the sugar was once saturated with a high dilution of bitumen, which, of course, could not be detected by any known means. Some prominent physicians have become entangled in the endorsements, and the courts will have to decide whether names have been used without permission. This is another illustration of the importance of the members of the profession using great caution in regard to the endorsement of articles.

—The Rev. W. Gladden, in the April *Century*, attempts to account for the great increase in crime and a general deterioration in public morals, on the ground of "Secularization of our Schools." He makes no mention of the fact that many of the most noted criminals are professors of religion! It looks as if it were more the quality of the religious teaching than the quantity that is desired.

—The late Prof. Agassiz facetiously remarked in an appeal to the legislature for an appropriation, that "*as fish was phosphorescent it must be food for the brain!*" The press reported him as saying, "as fish contains phosphorus, it must be food for the brain." Of course the statement was caught up like wild-fire, but the correction has not reached very far.

—A case of heroic self-sacrifice of medical men has just occurred at Kharkoff. A patient was brought into the lunatic asylum with hydrophobia who was so violent that he had to be put into a sack and carried along by *gens d'armes*. All the attendants refused to touch the unfortunate man, declaring that they would rather lose their situations, whereupon two of the medical officers, Drs. Gutnikoff and Davidoff, themselves undertook to wash and attend to him, though he was in the filthiest condition and covered with vermin. They managed after some time to get him somewhat cleaner and calmer. However, in one of his paroxysms he bit Dr. Gutnikoff in the finger, and bespattered Dr. Davidoff's hand and eye with his saliva. The man did not live through the night. The two doctors are considered to be in great danger.

—Referring to the prevalence of color blindness, a writer asks in the *Lancet*: "Is the sense of smell exceptionally free from like defects? I think not. In his evidence relating

to the case of alleged poisoning by chloroform at Pimlico, as reported in the papers, Dr. Stevenson likens the smell of chloral hydrate to that of lemon. Having always felt that the odor of the former was accurately represented by that of the watermelon, and having vainly endeavored to trace the faintest resemblance in it to that of lemon, I have asked myself whether I am suffering from a defect of the olfactory sense, which, in the absence of a name for it, I venture to call anosphresis. Perhaps some of your readers, including the eminent analyst referred to, will kindly put me right in this matter, the subject being, as it seems to me, one of great importance in medico-legal investigations."

—When the cholera appeared at Toulon in June, 1884, there were loud official denials of the statement that it had been brought by a Cochin China transport on board of which there had been a fatal case during the passage. The medical inspectors insisted that England was the culprit in having allowed quarantine regulations in Egypt to be relaxed, and some nameless English vessel was alleged to have brought the infection from Egypt to Toulon. The Toulon people never doubted for an instant that the Cochin China transport was the offender, and they have consequently been vehemently protesting against the landing of Tonquin troops at their port. The result is that, according to a report now published, elaborate precautions are to be taken.

—Among the large number of first-class steamships making weekly passages to different parts in Europe the Royal Mail to the Netherlands offers advantages which are making the line deservedly popular. The steamers are all first-class, ably officered, having large state rooms and very excellent table. Each vessel carries an experienced surgeon, and every attention necessary is given to the passengers to ensure all the comfort attainable on an ocean voyage. The passage is generally a little longer than by the other steamers but the landing at Rotterdam and Amsterdam is convenient to every part of Europe, being only eight hours from Paris and London fifteen hours from Berlin and thirty-six hours from Vienna. Notwithstanding the fare for the round trip is only eighty dollars, or forty-two dollars each way, the excellence of the table, the comfort of the state rooms and the attention to the passengers are not exceeded by any of the steamships sailing from this port.

—The disciples of Hahnemann celebrated the anniversary of his birthday in Rochester, N. Y., on the 10th of April, at which Dr. Asa S. Couch, of Fredonia, eloquently responded to the principal toast of the evening, viz.:—"The Immortal Hahnemann." He said in part: "In the earlier days of Homœopathy—and when I look about me I know I look upon those who will understand and agree with me when I say—the fight against the system was made upon the broad claim that it represented nothing but unmitigated trash and quackery. But now that the larger intelligence and more than one-half of the taxable property of the best portions of our land are represented by those who employ its physicians, the great objection is that we employ a pseudonyme and call ourselves by a special name. If we will only drop this we may graciously be received back into the regular fold. Now, what is 'regular' but a patronymic? In grammar we have parts of speech which are 'regular, irregular and defective,' 'active, passive and neuter,' and as our old school friends have appropriated what is desirable in the way of a pseudonyme in such a discrimination it leaves to us the decision whether we will take the irregular and defective, the passive and neuter or not. I think I may safely assume to speak for all of us when I declare that he will take neither of the unwholesome leavings, but will, so long as our old school friends arrogate to themselves, the pseudonyme of 'regular,' take to ourselves that of 'homœopathist,' and 'fight it out on that line if it takes all summer.'" * * *

[We beg to remind Dr. Couch that there are no physicians, no colleges, and no societies which advertise themselves as "regular," while those styling themselves homœopathists, flaunt their pseudonyme upon every occasion, as, we think, in bad taste, to say the least!]

"Is it not petty, mean, contemptible, upon the narrow measure of a human life, to stand quarreling about names and pseudonymes? The only thing which can justify the declaration which I recently made is that other adage, 'Self-preservation is the first law of nature.' But let us have as little to do with this sort of business as possible. Let us look and move forward and not spend too much time with fossils and stragglers. In any event, let us not become mere hero worshippers in our own school, but rather followers of every light which penetrates the great body of ignorance before us."

["So say we all of us!" The "Old School" is doing its utmost to get rid of all appellations, and why should not the homœopathists do likewise and discard theirs?]

—The next meeting of the American Public Health Association will be held at Toronto, Ont., Oct. 5–8, 1886. For further particulars, address Dr. Irving A. Watson, Sec'y, Concord, N. H.

—The reports of the Health Boards the world over show that revaccination confers almost complete immunity from small-pox, and justify the enforcement of the ordinance requiring it.

—The State Board of Health of Pennsylvania will hold a convention in Philadelphia, May 12–14 next, which bids fair to rival the meeting of the National body, recently held in Washington. The subjects for discussion as announced cover a wide range.

—Dr. I. T. Talbot, chairman, etc., desires us to announce that while the subject of the bureau of surgery for discussion at the next meeting of the American Institute of Homœopathy will be confined to Inguinal and Femoral Hernia, communications on other subjects are solicited.

—Russia is said to be a good place for doctors to emigrate to. It is stated that for a population of over 90,000,000 there are only 5,200 medical men—1,600 under the Minister of the Interior, 1,000 engaged by the zemstov, and 2,600 in private practice. No greater proof, perhaps, of the unhealthiness of St. Petersburg could be given than the fact that during the month of January last no fewer then 2,704 persons died (1,536 males and 1,168 females), while the births for the same period amounted to 1,314 boys and 1,286 girls only—2,600 altogether—or 104 less than the deaths.